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GUIDE

TO THE

Australian Ethnological Collection

EXHIBITED IN THE

NATIONAL MUSEUM OF VICTORIA

BY

SIR BALDWIN SPENCER,

K.C.M.G., F.R.S., D.LITT., M.A., D.Sc.

Hon. Director of the Museum.

THIRD EDITION

ILLUSTRATED BY 33 PLATES

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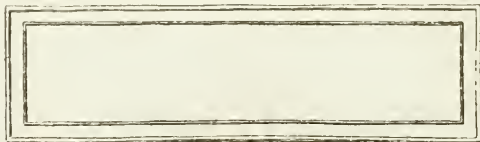
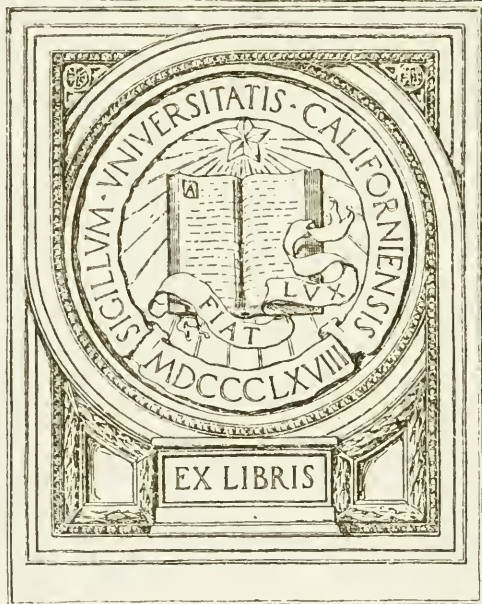
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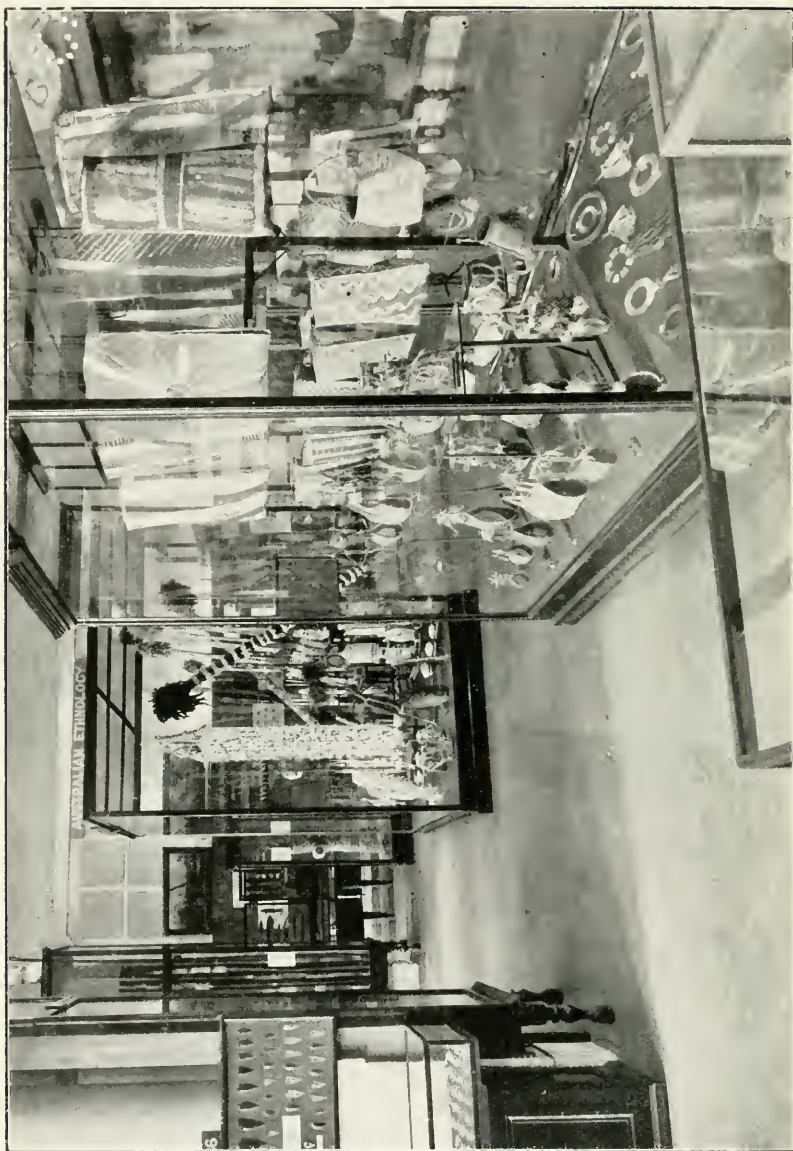
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PLATE I



GENERAL VIEW OF THE AUSTRALIAN ETHNOLOGICAL GALLERY

PREFACE TO THE THIRD EDITION.

In consequence of the peculiar interest which attaches to the Australian aborigines, a special gallery has been devoted to the exhibition of their weapons, implements, and ceremonial objects. These have been arranged so as to show, as far as possible, series of objects belonging to tribes from the various parts of the continent. For example, the forms of shields used in different tribes are shown in one case, boomerangs in another, sacred and ceremonial objects in another.

Most unfortunately the opportunity was not taken in the early days, before the iron tomahawk had replaced the native stone ax, of bringing together a collection illustrative of implements in daily use amongst the Victorian tribes, and now, owing to the practically complete extinction of the tribes, it is, of course, impossible to secure them. However, despite this, the Australian collection is a fairly representative one and is especially rich in regard to various articles connected with magic and in what are usually designated as "sacred" objects, such as are used during initiation ceremonies, and which of all things possessed by the aborigine are the most difficult to procure, while at the same time they are of the deepest interest.

Owing to the imperfect nature of the early records of the collection it is not possible to ascertain how many of our more interesting exhibits connected with Victorian and New South Wales tribes were obtained, but it appears evident that the institution is deeply indebted to the late Mr. Brough Smyth, whose important work on *The Aborigines of Victoria* contains many illustrations of specimens now in the collection, and these, without which the collection would be very imperfect, were probably secured by him.

In the re-arrangement of the collection duplicates have been rigidly excluded, so that each specimen has a definite place and meaning in the series in which it occurs. The duplicate specimens—that is those which in essential features, though perhaps slightly different in detail, are similar to others in the collection, and the exhibition of which in public would therefore serve no adequate purpose—are placed

in the reserve collection which is available for purposes of study. It is earnestly to be desired that those who have the opportunity of doing so will assist in the procuring of specimens which will serve either to fill some of the many gaps which occur in the public collection or to enhance the value of the reserve collection.

Since the first issue of the guide, in 1901, very considerable additions have been made to both of the collections, in fact they have been more than doubled in size. The more important ones consist of specimens collected in various parts of the Northern Territory by the late Mr. F. J. Gillen and myself and of a very large collection of stone implements secured mainly through the co-operation of Mr. A. S. Kenyon. The great majority of the specimens thus secured are in the reserve collection, and are available for study. Every specimen figured in *The Native Tribes of Central Australia*, *The Northern Tribes of Central Australia*, *Across Australia*, and *The Native Tribes of the Northern Territory*, is in the Museum collection, together with the whole of the material, including photographic negatives and phonographic records secured by Mr. Gillen and myself during the progress of our work.

Though considerable additions have also been made to the collection since the issue of the second guide, in 1915, more especially in regard to stone implements of which the Museum now contains a most extensive collection of some 15,000 specimens, limitations of space have prevented the exhibition of many new acquisitions. The most important additions are four series containing, respectively, a large number of cylindrico-conical implements from the Darling River district, in New South Wales, collected by Messrs. H. S. Officer and A. S. Kenyon; a number of decorated ceremonial slabs from Groote Island, presented by Mr. H. L. White; casts of the heads of a number of Victorian aborigines, three masks of Tasmanian aborigines, and a cast of the skeleton of Truganini, the last of the Tasmanians.

By means of descriptive labels each series of objects is, it is hoped, sufficiently described, and the following catalogue is in the main a copy of these labels illustrated by photographic reproductions of some of the more important and interesting objects in the collection.

BALDWIN SPENCER.

National Museum,
Melbourne, 1922.

INTRODUCTION.

The Australian aborigines are regarded as belonging to one of the most primitive of existing races. They are true savages, living by fishing and hunting, never cultivating the land over which they roam, nor domesticating animals. How far the fact that, with the possible exception of the dog, there are no animals useful for domestic purposes in Australia has been an element in retarding the development of the race, it is impossible to say. One thing is certain, and that is that for long ages they have been shut off from intercourse with outside peoples.

There is still very considerable doubt as to the origin of the present Australian aborigines, but it appears to be almost certain that in past times the whole of the continent, including Tasmania, was occupied by one people. This original, and probably "Ulotrichous" population,* was almost certainly at an early period widely spread over Malaysia and the Australian continent, including Tasmania, which at that time was not completely separated off by Bass Strait. There is no doubt but that the Tasmanians had no boats capable of crossing the latter, and must, therefore, have walked over on land, or at most have paddled every now and then across narrow arms of still water in the frailest of canoes. Subsequently there came a time when what was at first low-lying land with peaks, now represented by King Island on the west, and the Kent, Furneaux, and Flinders Islands on the east, sank beneath the sea, leaving part of this original "Ulotrichous" population stranded in Tasmania, where *Homo tasmanianus* survived until he came in contact with Europeans and was exterminated. The Tasmanians, isolated from the mainland, may be regarded as having retained the physical structure and the low level of culture of the old "Ulotrichous" stock. Their hair had the frizzly character of the negroid races, in contrast to the wavy nature of that of the present Australians. Their weapons and implements were of the simplest description; long, pointed, but probably not barbed, spears were thrown by the hand without the help of any spear thrower, which they had not invented; they had no boomerang, no ground axes, and only the crudest form of chipped stones, which were not set in handles, but simply held in the hand while being used as scrapers, knives, or

* Cf. A. W. H. WALLACE, *On the Origin of the Peopling of Tasmania and Australia*, *Ann. Mag. Nat. Hist.*, Ser. 5, 1880. A valuable bibliography referring to the subject is appended to this paper.

axes. They were, in fact, living representatives of palæolithic man, lower in the scale of culture than any human beings now upon earth. It is a matter for the deepest regret that they were allowed to become extinct without our gaining anything but the most meagre information with regard to their customs and organization.*

Various theories have been proposed with regard to the origin of the present Australian race. Sir W. H. Flower and Mr. Lydekker suggested that a low type of dark-complexioned Caucasians entered from the north and produced a blend with the original inhabitants, resulting in the formation of the present Australian people, so that, according to these two authors, the latter "is not a distinct race at all, that is, not a homogeneous group formed by the gradual modification of one of the original stocks, but rather a cross between two already formed branches of these stocks."†

There is no doubt but that the Australian native represents a higher grade of development than the Tasmanian, and, whether he is or is not the result of a blend between an earlier race and a later immigration, at the present day the type is a remarkably uniform one over the whole of the continent. His average height is about 5 ft. 6 in.; his skin is dark chocolate brown in colour, never truly black; his hair is wavy and not frizzly or woolly, though the beard may at times be somewhat frizzly, yet it is never similar to that of the Tasmanian or true negro. He lives in tribes, each of which has a distinctive name and occupies and roams over an area of land the limits of which are clearly known to the natives. Each tribe speaks a dialect differing so much from that of neighbouring tribes that individuals belonging to distinct tribes cannot understand each others' speech, though not infrequently they can communicate by means of gesture language which is remarkably well developed. In regard to the shape of the head, the native belongs to the dolichocephalic or long-headed group of men.‡ With the

* For an account of the Tasmanians the student should consult *The Aborigines of Tasmania*, by H. Ling Roth, 2nd edit, 1899.

† *Mammals living and extinct*, p. 748.

‡ A dolichocephalic skull is one in which, the length of the head being counted as 100, the greatest proportional breadth is less than 75; when the latter is greater than 80 then it is spoken of as brachycephalic or broad headed. A glance at a map of the world, indicating the distribution of long and broad-headed races, shows that in this respect there is a great contrast between the northern and southern parts of the old world; the line of separation passes east and west through the Alps and Himalayas. North of this, Europe-Asia is occupied by broad-headed peoples (except along the western coast line, where Great Britain, Scandinavia, and Denmark are occupied by long-headed men). To the south, Spain, Southern Italy, Arabia, India, the African and Australian continents, and Melanesia are the homes of the long-headed peoples. The ancient Dravidian inhabitants of India stand like a connecting link between the African races on the west and the Australian and Melanesian on the east. It must be remembered, in connexion with this, that the form of the head is an indication of race and not of intelligence.

possible exception, perhaps, of a very small number, every tribe has a definite organization, being divided into two main groups (often subdivided into four or eight), and the rule is that men of one group must marry women of another, the children passing, in some cases, into the mother's half (maternal descent), in others into that of the father (paternal descent). Of relationship, as it is counted amongst ourselves, the Australian aboriginal has little idea. Speaking generally, a man not only, for example, calls his own mother by one name, but he applies the same term to all her sisters, that is, to all the women whom, and whom alone, his father might lawfully have married. In the same way he applies one term to his father and to all the latter's brothers, one term to his actual brothers, and the same to his father's brothers' sons, and so on. That is, all their ideas of relationship have reference to the group of which any individual is a member rather than to the individual himself.

In addition to this remarkable social organization, which is based on group and not individual relationship, the system which is called totemism is largely developed amongst the Australian aborigines. A totem, to use the words of Sir J. G. Frazer, is "a class of material objects which a savage regards with superstitious respect, believing that there exists between him and every member of the class an intimate and altogether special relation." The aboriginal calls himself by the name of his totem, saying that he is a kangaroo, emu, or gum-tree man, as the case may be; and in many tribes the native believes that his ancestors were actually descended from the totemic animal or plant, and will only injure or eat it on very rare occasions. On the other hand, he often performs ceremonies which have for their object the increase of the animal or plant which he regards as his totem. Details in regard to this system, however, vary widely, in different parts of the continent, and its origin is lost in obscurity. In some tribes, such as the Kurnai, all the men have one totem, all the women another; in other tribes, such as the Arunta, the totems are very numerous, and each group includes both men and women; in some, such as the Dicri, a man of one totem may only marry a woman of another, the children passing into the mother's totem; in others, such as the Binbinga, the same holds true, except that the child passes into the father's totem; whilst in others, such as the Arunta, the totem has nothing to do with the regulation of marriage, and there is no necessity for the children to pass into either that of the father or the mother. In all tribes the regulating of matters of tribal interest, both internal and external, lies in the hands of the

older men. There may be one or more who have special influence owing to their age, or fighting power, or skill in matters of magic, but there is never any one to whom the title of chief can properly be applied.

As amongst all savage people, the aboriginal is bound hand and foot by custom; what his fathers did, that he must do; and before a youth is admitted to the ranks of the men he must submit to what are often the painful rites attendant upon initiation, such as the knocking out of a tooth, &c.

Every tribe has certain sacred or secret ceremonies concerned with initiation or with the totems, all knowledge of which is forbidden to women and children under severe penalties, and, in connexion with these, certain objects, such as sacred sticks, stones, and decorations, are used.

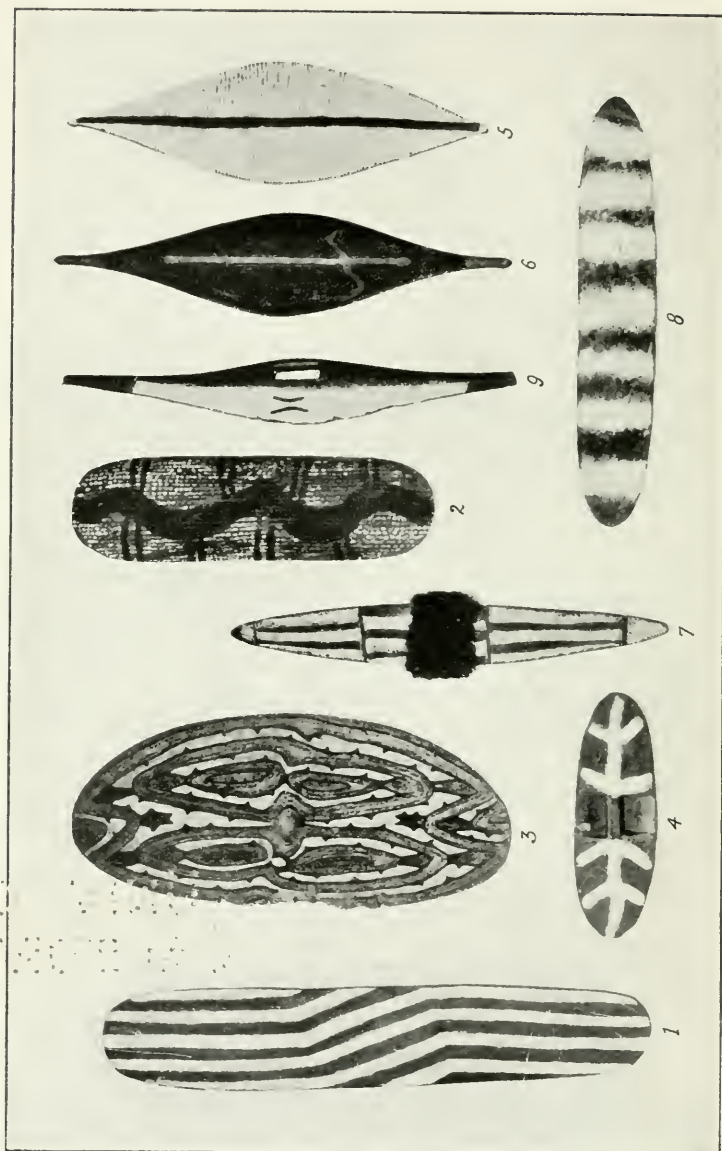
In regard to their weapons and implements, there is considerable diversity in form in different parts of the continent.* Nowhere is any use ever made of metal, but in the manufacture of ground stone axes the Australian has advanced beyond the level of the Tasmanian.

Perhaps the most characteristic Australian weapon is the return boomerang, which is made so that when thrown it will return to the thrower. It must be remembered, however, that there are large areas of the continent over which this is not met with, and where only the ordinary fighting boomerang is seen. His spears may be simply sharpened wooden sticks, or one or more barbs may be either cut out from the solid or attached near to the point, and in the northern parts they may be tipped with flaked stone heads. To aid him in throwing them he has the spear-thrower. The use of bow and arrow is unknown to him. For making fire he uses both the drill and the sawing method, a piece of hard wood being either rapidly rotated, or worked up and down in a groove, on a softer piece, the powder worn away from which is ignited by the heat of the friction.

In pictorial art the Australian native is not far advanced, though certain of his geometrical designs are elaborate and decorative, while at times he can draw with some spirit outlines of the animals which he is accustomed to hunt. With rude drawings of animals and plants and geometrical

* For a list of literature dealing with the Australian aboriginals reference should be made to the bibliography compiled by Mr. R. Etheridge, junior, *Memoirs of Geological Survey, N.S.W.*, Palaeontological Series No. 8.

So far as the objects in this collection are concerned, in many cases the identical, and in others similar ones are described and figured in one or other of the following works:—*The Aborigines of Victoria*, by R. Brough Smyth, *Ethnological Studies amongst the North-west-central Queensland Aborigines*, by Walter E. Roth, *The Native Tribes of Central Australia*, *The Northern Tribes of Central Australia*, *Across Australia*, by Baldwin Spencer and F. J. Gillen, and *The Native Tribes of the Northern Territory of Australia*, by Baldwin Spencer.



SHIELDS.

designs often consisting of concentric circles drawn in yellow and red ochre, white pipeclay, and charcoal, he ornaments the sides and roofs of his natural rock shelter or the sheets of bark out of which he builds the rough "mia-mias" which serve as a protection from wind and rain. With the sharp-edged tooth of an "opossum" implanted in the jaw he can incise either on wood or stone a series of concentric circles or a spiral with remarkable precision, and with a flake of flint will ornament the flat face of a shield with an elaborate design. In certain parts, as for example along the shores of Port Jackson, are found rough outlines of animals, such as fish and kangaroos, often of great size, which he has chiselled out upon flat rock surfaces.

He can rarely count beyond three or four, but in the direction in which they can be of service to him his faculties are wonderfully developed. In his wild state he knows at a glance the tracks of any individual in his camp, and can follow with unerring precision those of the animals upon which he has to rely for his food supply.

He has not reached the stage of writing, and his so-called message sticks are merely bits of wood on which certain marks are made to aid as a reminder to the bearer, though they cannot be read except by the individual who has made them or to whom they have been explained.

The Australian aboriginal may be regarded as a relic of the early childhood of mankind left stranded in a part of the world where he has, without the impetus derived from competition, remained in a low condition of savagery, developing along certain special lines; there is no conclusive evidence, either in his customs, social organization, weapons, or implements, to show that he has retrograded from a higher state of civilization.

SHIELDS. (Case 1.)

This series illustrates the more important forms of shields found amongst Australian natives. The make and form of the weapon varies to a very considerable degree in different parts of the continent. In the great majority of cases it has a broad, more or less flat surface, while in others the face may be reduced to a mere narrow, wedge-shaped structure, useful only for the warding off of blows of clubs. The wood out of which it is made may be divided into two kinds—(1) heavy hard wood, such as that of the "iron bark" (*Eucalyptus leucoxylon*), or of some species of *acacia*; and (2) soft light wood, such as that of the "bean tree" (*Erythrina vespertilio*), or of the "Currajong" (*Stereuba* spp.).

The handle, as a general rule, forms part of the solid block out of which the shield is cut, but it may, in comparatively few forms, be made of a separate piece of wood, which is bent round and inserted while green into holes made to receive the two ends. In the first case the handle may either, as in the Central Australian specimens (9-16), be level with the back surface, in which case a cavity for the hand is hollowed out in the body of the weapon; or it may, as in the West Australian specimens, project outwards (1-7).*

The space for the hand is usually small, in accordance with the size of that of the native. In some cases, when in use, a strip of fur string is wound round the handle. Various forms are characteristic of various parts of the continent, and in this collection twelve main types may be recognised—

- A. A flat, thin, slab-like structure, from 2 to 3 feet in length, with the handle cut out of the solid block, and projecting from the surface. The front is always ornamented with very characteristic incised zig-zag lines, the grooves being filled up with red, white, and yellow pigment. This form is very distinctive of Western Australia (1-8).
- B. A solid, elongate form with round ends, a distinctly convex front surface, and, in transverse section, concave hinder surface. The handle is cut out of the block, and is level with the back surface, a small space for the hand being cut out beneath it. The size varies from $1\frac{1}{2}$ feet to 3 feet in length. It is usually made out of the light, soft wood of the "bean tree," and is the characteristic shield of Central Australian tribes, such as the Warramunga, Kaitish, Luritja, &c. (9-16).
- C. A shield similar in form to the last, but made out of dark, heavy wood (17).
- D. A shield similar in form and material to the last, but devoid of the well-marked, broad, longitudinal grooves on the face. It has bands of fine, rough grooves (18).
- E. A form with the front face similar in outline to type B, but differing from the latter in (1) the fact that the hinder surface is not distinctly concave, but either flat or slightly convex; and (2) in the absence of the well-marked, broad, longitudinal grooves, which are always present on the former. Found in Queensland (19-25).

* The numbers refer to those attached to the specimens in the cases, except such as Fig. 1, &c., which refer to illustrations in the plates.

- F. A broad, thin form, with the front convex and the back concave, the two ends tapering. It is made out of the outer part of the wood of the limb of some hard-wood tree, such as a gum tree. The handle is distinct, the ends being inserted into two holes, from which they can only be withdrawn with difficulty. The front is usually decorated with incised lines, the spaces being filled up with red ochre and pipe-clay. This form is from Victoria and New South Wales (26-33).
- G. A broad, flat form, with the two ends tapering and terminating either in blunt points or in slight swellings. The surface is often richly carved with incised designs, which may represent animal forms. The whole structure is made out of a solid mass of hard wood, and this series represents, perhaps, the most highly ornate of all Australian shields. It was characteristic of certain parts of Victoria and New South Wales, but, unfortunately, very few specimens have been preserved (34-39).
- H. A form commonly called *Mulga* and also *Mulgon* by the natives of the Lower Murray, and *Marr-aga* by the Gippsland natives. It is relatively narrow, with the front always more or less convex, and the hinder surface more or less triangular in section, the handle being cut out of the solid. The front is always ornamented with incised lines, forming herring-bone or chevron or lozenge-shaped patterns, which are often extremely regular and well executed. The grooves are usually filled with red, white, and yellow pigment. This form was widely spread over parts of the south-east of the continent. The greatest length is something over 3 feet; the width varies considerably, but is always small in proportion to the length; and the whole structure, handle included, is always cut out of a solid block of hard wood. The weight varies from $2\frac{1}{2}$ to $3\frac{1}{2}$ pounds (40-47).
- K. An elongate form, of hard wood, with a flattened front face and rounded ends, not triangular in section (48-50).
- L. An elongate form, of hard wood, with distinctly convex front surface, with a tendency to become triangular in section (51-53).
- M. A very distinct, flattened, wedge-like form, with the handle cut out of the solid, and the two sides of the face, which are inclined at a sharp angle to each

other, ornamented with incised patterns. The length varies from 30 to 40 inches. The width is not more than 3 inches, and the depth about 5 to 6 inches from the anterior to the posterior edge. The weapon, which was used simply for parrying the blows of clubs, was found in the south-east part of the continent, and was called Drumming by the natives of the Western District of Victoria (54-60).

- N. A large form met with only in certain parts of Queensland. It sometimes has a curious curved shape (17, 18). It is made out of a light wood, the handle being cut out of the solid, and there is always, but sometimes much more prominently marked than at others, a central boss on the face. The striking and characteristic designs in pigment are totally unlike those met with in other parts, and possibly point to an outside influence (61-66).

1-8. Western Australian shields, with the characteristic incised zig-zag lines. In 8 the weapon is somewhat curved, and the back, as well as the front, is ornamented with incised lines. Native name, Wunda or Wanda. (Fig. 1.)

9-16. Shields very characteristic of Central Australian tribes. Made out of light, soft wood of the "bean tree" (*Erythrina resperitio*). Broadly grooved and red ochred on both sides, with the edge turned round so as to cause the back in transverse section to be distinctly concave, the front surface being convex (11, 13, 14, 15, 16). (Presented by Professor Spencer and Mr. F. J. Gillen.) (Fig. 2.)

17. A heavy hard wood shield (probably some species of *Eucalyptus*), ornamented with grooves on each side. Said to come from Northern Victoria.

18. A very hard wood shield of gum tree wood, roughly grooved on each side. In form it agrees with the light soft wood shields (9, &c.) of Central Australia, from which district it also comes.

19-23. A series of shields, the front face of which is broad, convex, and similar in outline to that of Nos. 9-16, but the lateral edges are not turned round, and the hinder surface is either flat or slightly convex, and there is a further regular series of longitudinal grooves. 19. From Mackay, Queensland. 20. From Mackay, Queensland. The surface, both back and front, is ornamented with rows of incised lines coloured red; the design in white may possibly be intended to represent some form of animal. Weight, 26 ounces. Native name, Goolmary. 21. Made of the light wood of the

"Flame" tree; Queensland. 22. From the Georgina district, North-West Queensland; ornamented with incised lines coloured red and yellow; the handle has a covering of emu feathers. 23. From Mackay, Queensland; made of the light wood of the Currajong tree (*Sterculia* sp.), and ornamented with designs in red, yellow, black, and white pigment; the incised pattern is evidently modern.

24, 25. Two specimens closely similar in general form to the above four, but with a style of ornament never met with in the central tribes. From the Boulia district, Queensland. Native name, Kogurn. (Fig. 4.)

26-33. A series of specimens in which the handle is formed separately from the main body, which is made out of the wood of some gum tree (often *Eucalyptus bruceayana* or *E. cinerula*). When the slab has been chopped away from the tree and roughly chipped to the approximate shape, so that there is a broad central part tapering off towards each end (the exact shape of which varies much), it is said that a mound of earth some 3 feet in length and about the same width as the shield is made; hot ashes are placed on the mound, and the slab of green wood on top of them; then soils of grass and stones are piled above it, and by the time that the ashes are cold the shield has assumed the curve of the mound. The handle has the characteristic form of a piece of wood inserted at each end, while it is yet green, into the body of the shield, usually so that the two holes lie in the line corresponding to the long axis of the shield. This form is used in fighting as a protection against spears. The length is usually 36 to 40 inches, and the greatest width 10 inches. Most usually, the front face is ornamented with bands running in various directions, the space between them being filled in with incised lines forming chevron, herring-bone, lozenge-shaped patterns. The bands and raised parts between the grooves are often coloured with red ochre, and the grooves filled in with pipeclay. This form was made principally by natives of the south-east of the continent, and was commonly called Giam or Kerrem. On the Lower Murray it was called Karragarn; and at Lake Tyers, Bamerook. 26. From Gippsland. 27. From Victoria. (Fig. 5.) 28. From New South Wales. 29, 30. From the Lower Murray. One of them is placed edgewise so as to show the handle and width of the slab of wood. 31. A specimen which agrees with the others in the characteristic feature of the structure of the handle, but differs from them in the absence of the tapering ends (though in this respect No. 27 approaches it), and also in the absence of incised lines. (32, 33 presented by Mr. J. H. Connell.)

34-39. Six specimens of a shield formerly made in Victoria and New South Wales. It was manufactured out of a solid slab cut from the limb of a hardwood tree, the wood next to the bark being used for the purpose. The handle is cut out of the solid. The front surface was ornamented with incised lines, which often indicated the outlines of animals. (34 presented by Mr. A. A. C. Le Souëf.) 35. A richly ornamented specimen, 51 inches in length, and 13 inches in width; New South Wales. 36. The ornamentation is probably meant to represent the outline of the body of a large lizard, surrounded by incised lines which run parallel to the outline of the body, and towards the outer edge of the shield change into an irregular pattern. River Namoi or Peel, New South Wales. (Fig. 6.) 37. From Victoria. (38, 39 presented by Mr. J. H. Connell.)

40-47. A series of shields used for warding off blows of clubs. They are all made of some hard wood, such as the "ironbark" (*Eucalyptus leucoxylon*) or an acacia, and vary in weight from $2\frac{1}{2}$ to $3\frac{1}{2}$ pounds. The width is small in comparison to the length. In No. 40, which may be taken as a typical example, the length is 35 inches, and the width 5 inches. In transverse section the weapon is triangular, the handle being hollowed out along the line which corresponds to the apex of the triangle. It is ornamented with incised lines, the pattern being usually a very definite one, composed of herring-bone or chevron lines or lozenge-shaped spaces. The grooves are frequently filled in with white pipeclay. The name most commonly applied to this form, which was very characteristic of the south-east of the continent, was Mulga; on the Lower Murray it was called Mulgon; and in Gippsland, Marraga. From the Western District of Victoria. 41. From New South Wales. 42. From Victoria. 43. From Victoria; turned round, so as to show the handle. 44. From Victoria; showing the band of fur which was often bound round the handle. (Fig. 7.) 45. From Victoria; taken in 1847 during a fight with the natives of the Avoca tribe, at Creswick's Water-hole. 46. From Victoria; Avoca tribe. 47. An exceptionally narrow specimen; from Victoria.

48, 49, 50. Shields made of heavy wood, somewhat approaching in shape the Mulga, but not so distinctly triangular in section. 48. From Kimberley, Western Australia. Ornamented with incised zig-zag lines, and covered with pipeclay and red ochre. (Fig. 8) 49. From the Gnurla tribe, Western Australia; native name, Kurdigi. 50. From Western Australia; ornamented with incised lines.

51. A specimen made of dark, heavy wood, somewhat approaching in form the Mulga, but not so distinctly triangular in section. Ornamented all over with chipplings. From New South Wales.

52, 53. Two specimens made out of a heavy wood, closely allied to the Mulga, but shorter than the typical examples of this, with a more convex front face, and with distinctly rounded ends. One is decorated with a strong design in black and red, and the other has no pigment, but is irregularly grooved all over. Both are from Victoria.

54-60. A series very characteristic of Victoria, called *Drumming*. All of them are closely similar in form, each being flat and wedge like. The usual length is about 35 inches, and the greatest width 4 inches. Both the anterior and posterior surfaces have the faces inclined at a sharp angle to one another. The handle is cut out of the solid, and the front face ornamented with incised lines forming herring-bone patterns, lozenge-shaped patches, &c., the grooves being filled in with white pipeclay. 55-57. From Gippsland. (Fig. 9.) 58. From Gippsland. 60. From New South Wales.

64-66. Specimens from the Cairns and Cardwell district, Queensland. A very distinct type of massive shield, made out of light, soft wood (Cunagoil tree). The projecting central boss and bold design in pigment are characteristic features. In two specimens (65, 66) the shield has a very distinct curve. Native name, *Biggan* or *Darkur*. (Fig. 3.)

67. A hardwood specimen, with a handle somewhat like that of the *Drumming*, but with a rounded front face. From the Lower Murray River.

BOOMERANGS. (Case 2.)

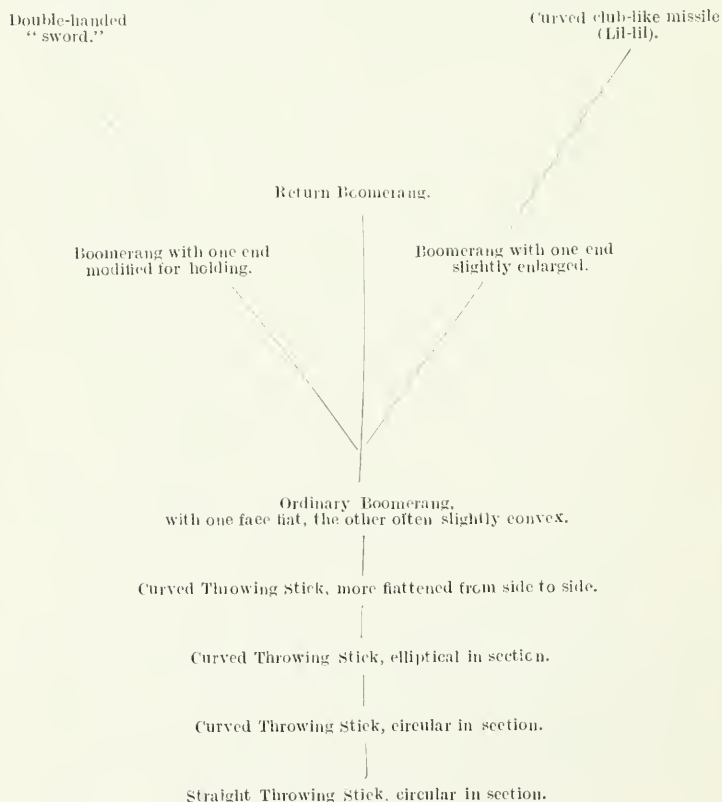
The boomerang is the most distinctive of the weapons of the Australian native, and its use does not appear to have been known to the Tasmanians. There are various forms of the implement, some large and heavy, used at close quarters for fighting; others for throwing at enemies or game; and others, which are often called play boomerangs, possess the characteristic feature of returning to the thrower. There is a remarkable resemblance in general form between that of a boomerang and the long curved leaves of many gum trees. Probably the return boomerang has not been known outside the limits of Australia.

The missile is usually more or less leaf shaped, and varies much in size, but always consists of a flattened blade, generally quite flat on one side and slightly convex on the other,

and always more or less curved. The property of returning appears to be associated with a slight twist, which is produced during the manufacture, and causes the weapon when thrown to rotate during its passage through the air. A skilful thrower will throw such a boomerang so that during its flight it will describe first a large curve, then circle round once or twice, and finally fall at his feet.

The different series exhibited are intended to illustrate the various forms, and also the possible development from a straight stick of (1) the ordinary curved, flat, fighting boomerang; (2) the return boomerang; (3) the large double-handed "sword"; and (4) the club-headed structure called "lil-lil."

The possible relationship of these various forms of missiles may be illustrated by the following diagram, the actual specimens illustrating which are shown in Case 3, Series L., and Case 4, Series A:—



The surface of the boomerang may be either quite smooth, or be ornamented on one or both sides with grooves, or may have incised patterns, the latter being most frequently seen in the case of many Queensland specimens.

In many tribes, such as those of Central Australia, the use of the return boomerang is quite unknown, though it is, or was, found among most eastern and southern coastal tribes, and over large areas in Queensland and Western Australia.

In the Northern Territory and interior of Queensland a remarkable form known as a beaked or hooked boomerang is met with, the blade of which resembles that of the ordinary form, but is provided with a prominent beak at one end.

SERIES A.—This illustrates the gradual increase in curve, starting from No. 1, in which it is widely open, and passing by gradual degrees to No. 24, in which it is most acute. No. 25 is seen edgewise, so as to show the characteristic twist in the blade of a return boomerang. (Fig. 24.)

1. Bibaparu; from the Boulia district, Queensland.

2. Barragan; New South Wales.

3. Kylie; Western Australia.

4, 5. Barngit; Victoria.

6. Woungim, or return boomerang; Victoria.

7. From Queensland.

8. Kylie; Western Australia.

9, 10, 11. Barngit; Victoria.

12, 13, 14, 15, 16. Woungim; Victoria.

17. From Queensland.

18, 19. Barragan; New South Wales.

21, 22, 23. Woungim; Victoria.

24. Woungim; Woewurong tribe, Victoria. (Fig. 14.)

The ordinary boomerang flies from right to left. This particular one is so made as to fly from left to right. The limbs are nearly at right angles to one another. The side that is nearest to the ground while it is gyrating is flat and smooth, the upper one being slightly convex.

25. Woungim; Woewurong tribe, Victoria.

SERIES B.—This illustrates a comparatively small number of boomerangs, in which the two sides are unequal in length, and in which, if the convex side be placed uppermost, there is a slight but distinct upward bend in the right half.

26. Barragan; New South Wales.

27. Kylie; Western Australia.

28. Kylie; from the Kardagar tribe, Western Australia.

29. Queensland.

30. Eaw tribe, Western Australia.

31. Gaurli tribe, Western Australia.

SERIES C.—This illustrates a very characteristic series of Western Australian boomerangs, in which the two halves of the blade are of unequal length, and in which, if the convex side be placed uppermost, there is a slight but distinct upward bend on the left side. All of the specimens come from Western Australia, and are made out of the wood of an acacia tree. (32-42.)

SERIES D.—A special form of boomerang, known from its shape as a beaked or hooked boomerang. (Fig. 18.) Found amongst the Northern Central tribes and in the interior of Queensland. It is ornamented with a close set of grooves, which follow the curve of the blade on the convex side, and on the other are rough and irregular. It always has a coating of red ochre. There always appears to be a slight, but clearly marked, projection below the beak on the side from which this arises. It is used for fighting, and, it is said, that instead of glancing aside when it strikes the object with which the native being attacked defends himself, the beak catches upon it, and, as a result, the blade swings round and strikes the man. The weapon is also used for fighting at close quarters, and if the beak is broken off the blade is trimmed down to form an ordinary fighting boomerang. It is made by natives in the northern and north-western interior, and is traded down to the south of the Macdonnell Ranges. 49. Beak short and broad. 50. Boomerang in course of manufacture. (Presented by Professor Spencer and Mr. F. J. Gillen.)

43-50. From the Warramunga tribe, Central Australia.

SERIES E.—This series (together with Series D) contains thirteen typical forms of boomerangs from various parts of Australia.

51. A fighting boomerang, characterized by a sharp curve at one end; Queensland. (Fig. 20.)

52. A Wonguim, or return boomerang; Victoria. (Fig. 21.)

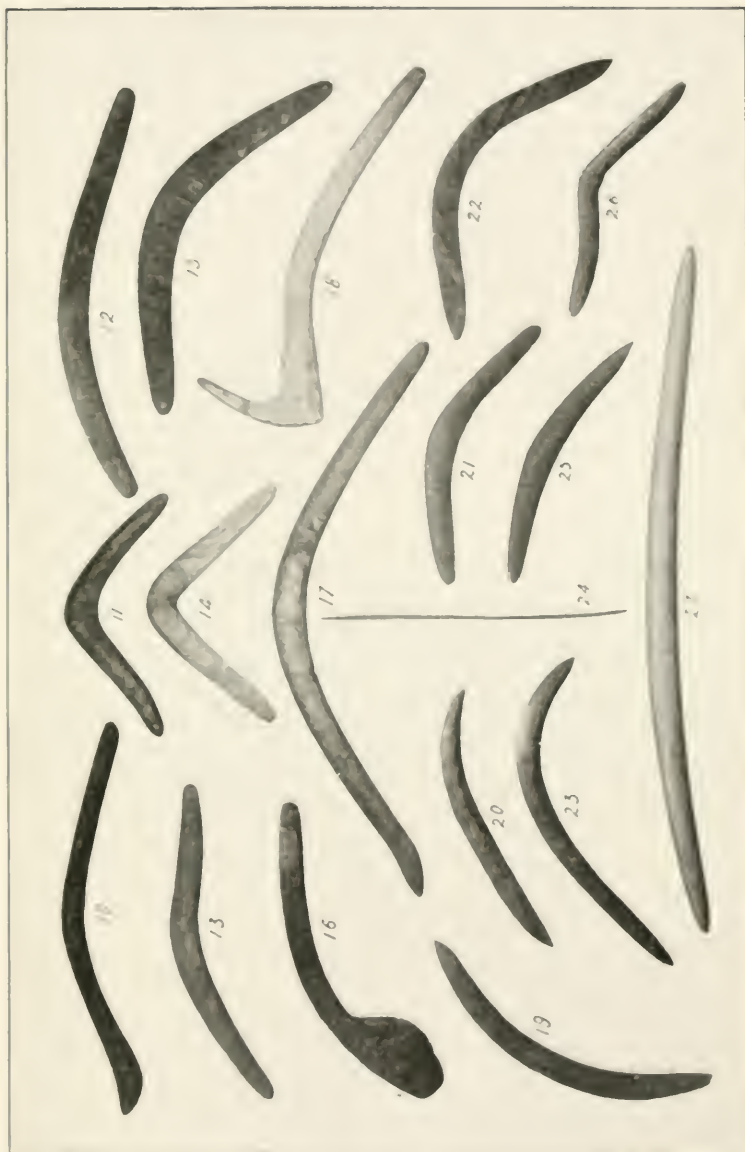
53. An ornamented boomerang, showing the flat side; Western Australia. (Fig. 22.)

54. A special form called Quiriang-an-wun, with one end modified; used either for fighting or for throwing; Victoria. (Fig. 17.)

55. A fighting boomerang, characteristic of Central Australian tribes. (Fig. 12.)

56. A Barngit, or fighting boomerang, Victoria. (Fig. 13.)

57. An ornamented boomerang, with a wide, open, symmetrical curve, and a distinct thickening in the centre. (Fig. 25.)



BOOMERANGS

58. A fighting boomerang, Wongala, ornamented with red ochre; Port Mackay, Queensland. (Fig. 19.)

59. Kylie, or Western Australian return boomerang. (Fig. 26.)

60. A Barragan, or return boomerang; New South Wales. (Fig. 11.)

61. A fighting boomerang, with rough surface and both ends whitened; Macarthur River, Gulf of Carpentaria.

62, 63. A special form of play boomerang in the form of a cross, called Yalma; Northern Queensland.

SERIES F.—A series from various parts of Australia, in which the curve is a symmetrical one, and in which there is a tendency to a thickening of the blade in the centre, so as to produce an angle in the middle of the convex edge.

64, 65, 66. From North Queensland and Gulf of Carpentaria district.

67. From Queensland.

68. Wongnim; Western District, Victoria.

69. From Queensland.

70. From Burdekin River, Queensland.

71. Boomerang made of Jarrah, and ornamented with pigment; East Kimberley, Western Australia.

72. From Norman River, Gulf of Carpentaria.

73. Barragan, or return boomerang; New South Wales.

SERIES G.—Illustrating the transition from a boomerang with a wide, open curve and the two sides symmetrical to one with a sharper curve and a distinct asymmetry of the sides. All of the specimens are grooved on the convex surface and red ochred.

74. From the Arunta tribe, Central Australia.

75. From the Luritja tribe, Central Australia.

76, 78, 80, 81. From the Arunta tribe, Central Australia.

77. From the Binbinga tribe, Macarthur River, Northern Territory.

79. From the Kaitish tribe, Barrow Creek, Northern Territory.

82. From the Kaitish tribe, Barrow Creek, Northern Territory.

83. From North-west Queensland.

84, 85. From the Arunta tribe, Central Australia.

86, 87, 88. From the Kaitish tribe, Barrow Creek, Northern Territory.

89. From the Granada district, North-West Queensland.

90. From the Kaitish tribe, Barrow Creek, Northern Territory.

91, 92. From the Arunta tribe, Alice Springs, Northern Territory.

93. From North-west Queensland.

94. From the Kaitish tribe, Barrow Creek, Northern Territory.

95. From the Binbinga tribe, Macarthur River, Northern Territory. (77-95 presented by Professor Spencer and Mr. F. J. Gillen.)

SERIES II.—Illustrating the transition from a boomerang with a wide, open curve and the two sides symmetrical to one with a sharper curve and a distinct asymmetry of the sides. All of the specimens are smooth and red ochred. (The distinction between this and the previous series lies in the presence in the one, and absence in the other, of grooves.)

96. From the Norman River, Queensland.

97, 98, 99, 100, 101. From the Ayr district, Burdekin River, Queensland.

102. Wongal; from Cardwell, Queensland.

103, 104, 105. From the Ayr district, Burdekin River, Queensland.

SERIES I.—These specimens (106-112) illustrate the extreme development of the boomerang, so far as size is concerned. There are all intermediate sizes between these, which are too heavy to be thrown by one hand, and the ordinary fighting boomerang. One end of these large forms is usually roughened, so as to assist in holding it, and the weapon is used for fighting at close quarters. In some instances they are ornamented with incised patterns. All these specimens come from Central Australia from the Arunta tribe. (Fig. 27.)

BOOMERANGS. (Case 3.)

SERIES J. AND K.—These two series (113-129), one of which (J) contains grooved, and the other (K) smooth specimens, are, so far as form is concerned, closely similar to the series G and H (Case 3), and illustrate the transition from a boomerang with a wide, open curve and symmetrical sides to one with a sharper curve and asymmetrical sides; but they differ from the latter in the absence of the red ochre decoration, which is a characteristic feature of the weapons of certain parts. All the specimens, with one or two doubtful cases, come from Queensland. (Fig. 23.)

SERIES L.—This series (130-145) illustrates the possible development of (1) the weapon called a Quiriang-an-wun from a boomerang, and, further, the development from the

latter of the weapon called the Lil-lil. Starting from an ordinary fighting boomerang (130), and passing upwards, it will be seen that one end becomes, first of all, turned slightly up, and then enlarged until the Quiriang-an-wun is reached (139). Still further development of the enlarged end leads to the Lil-lil, in which the handle still retains the curve of the boomerang, and the somewhat club-shaped head is flattened out, becoming, however, more swollen in the terminal one of the series.

130, 131. Two specimens of the Baragit; Victoria.

132, 133. Two specimens of the Barragan; New South Wales.

134, 135. Two specimens of the Baragit; Victoria.

136. Barragan; New South Wales.

137. Quiriang-an-wun; Victoria. (Fig. 10.)

138. A New South Wales weapon, similar in shape to the former.

139. Quiriang-an-wun; Victoria.

140. A Queensland weapon, similar in shape to the Lil-lil, ornamented on one side with incised lines crossing each other so as to produce a lozenge-shaped pattern. Rockingham Bay, Queensland.

141. Lil-lil. The broad end is marked with incised lines, which are said to represent a lagoon occupied by the tribe to which the owner belonged. The thickest part of the weapon (the centre of the blade) only measures half an inch. It is smoothed down to a thin edge, and weighs 14 ounces. (Fig. 16.)

142, 143. In these two weapons the shape is much the same as that of the Lil-lil, but the head becomes more swollen and clublike.

144, 145. Missile sticks, Gurba; Murrumbidgee River, New South Wales.

SERIES M. — This series (146-186) illustrates various forms of ornamented boomerangs. In many cases the surface of the boomerang is either quite smooth, or, as in 123, 125, it may be fluted; or, again, in rare cases, it may be covered with close-set shippings. In a large number, however, the surface is ornamental with an incised pattern. The latter varies to a considerable extent, but appears to be generally geometrical, and, more rarely, zoomorphic or phytomorphic. The series here exhibited will serve to illustrate the general nature of the pattern, which is normally drawn on one side, and consists of concentric, serpentine, or zig-zag lines and series of rhombs or ovals. In many cases the ends are said to as to have conic tips. It is a matter of some doubt as

to whether the patterns have any definite meaning; but in the case of some, certain of them are said to represent mountain-tops; others, folded fishing nets; and others, leaves, &c. These ornamented boomerangs are met with especially in the more north-eastern parts of the continent, though they are traded over long distances, and examples made in Queensland may be met with in the southern parts of Central Australia.

146. Dynevor Downs, Queensland. Native name, Wongal.

147. Queensland.

148. Sturt's Dépôt, New South Wales. Presented by Rev. Wm. Webster.

149. Rockingham Bay, Queensland.

150. Cooper's Creek, Queensland.

151. Sturt's Dépôt, New South Wales. Presented by Rev. Wm. Webster.

152. Charleville, Queensland.

153. Dynevor Downs, Queensland.

154. Queensland.

155. Boulia, Queensland. Native name, Bibuburn.

156, 157, 158, 159. Etheridge and Flinders Rivers, Queensland.

160. Arunta tribe, Central Australia.

161. Central Australia.

162. Boulia, Queensland.

163, 164. Near Broome, North-west Australia.

165. Ngurla tribe, Western Australia; ornamented with fine chippings.

166, 167, 168, 169. Dynevor Downs, Queensland. Native name, Wongal.

170, 171. North-east coast, Queensland

172. Queensland.

173. Arunta tribe, Central Australia.

174. Normanton, Gulf of Carpentaria, Queensland

175. A specimen with coarse and fine grooving. Camoo-weal, Central Queensland.

176. Grooved specimen; Arunta tribe, Central Australia.

177. Grooved specimen; Kaitish tribe, Barrow Creek, Central Australia.

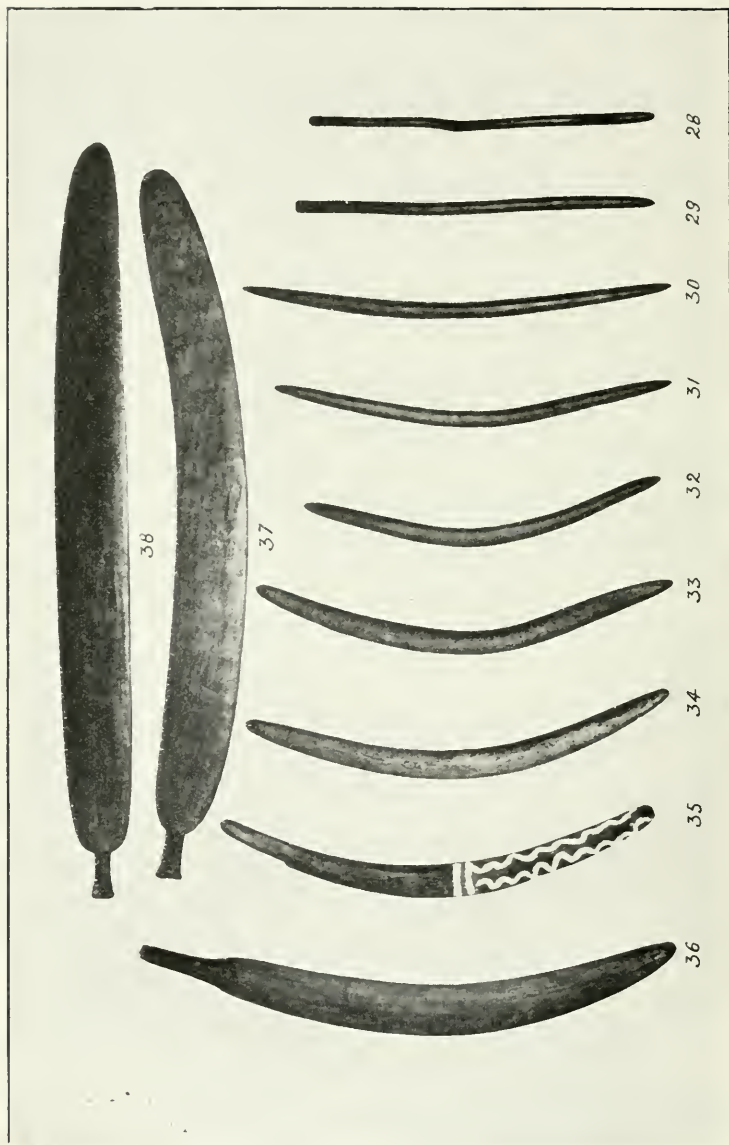
178, 179. Warramunga tribe, Tennant Creek, Central Australia.

180, 181, 182, 183. Arunta tribe, Central Australia.

184. Warramunga tribe, Tennant Creek, Central Australia.

185. Lake Frome, South Australia.

186. Wilpena Creek, South Australia.



DEVELOPMENT OF BOOMERANG FROM THROWING STICK.

BOOMERANGS AND CLUBS. (Case 4.)

SERIES A.—The series of specimens, including 1-15, is intended to show the transition from an ordinary throwing stick to a boomerang, and from this to a large, double-handed weapon commonly described as a sword. Starting at the lowest we have a rough, crooked stick, the simplest form of missile; immediately above this is a straight and more carefully made stick, and this is followed by one in which there is an open symmetrical curve. In 4 the stick is not only curved as to approximate in shape to a boomerang, but also, while retaining a more or less rounded form, shows a distinct trace of flattening, and forms a very clearly marked transition between a curved throwing stick and an ordinary fighting boomerang, such as is seen in 6. In 7 there is shown a boomerang in which one end is roughened so as to form a handle; and in 8, while the general form of the boomerang is clearly retained, one end is definitely shaped into a handle, and leads on easily to 9, in which is seen a small curved sword. The difference between this and 10 and 11 is merely one of size; and in the four upper specimens are seen examples in which the curved form is lost, and in which the handle becomes somewhat more sharply marked off from the blade.

1. A Dowak, or throwing stick. Wonunda-minung tribe, Western Australia. (Fig. 28.)

2. A more carefully shaped Dowak. Chiangwa tribe, Western Australia. (Fig. 29.)

3. A curved throwing stick called Chingona; from Central Australia. (Fig. 30.)

4. A curved throwing stick, showing much the same amount of curvature as many of the fighting boomerangs. Central Australia. (Fig. 31.)

5. A curved throwing stick, the very distinct flattening of which shows an unmistakable transition to a boomerang. Central Australia. (Fig. 32.)

6. A fighting boomerang; from Central Australia. (Fig. 33.)

7. An ordinary fighting boomerang of the Arunta tribe, Central Australia. (Fig. 34.)

8. A Bittergan, or wooden sword, evidently modelled on a heavy fighting boomerang, with one end modified to form a handle; length, 35 inches; weight, 41 ounces. Mackay, Queensland. (Fig. 35.)

9. A wooden sword; from North Australia. (Fig. 36.)

10, 11. Two large swords from the Cairns and Cardwell districts, Queensland. (Fig. 37.)

12. A straight sword with a somewhat long handle. North Australia. (Fig. 38.)

13-15. Three large swords from North Australia and Cardwell, Queensland.

SERIES B.—Specimens of a special form of club or waddy, called in Gippsland Kul-luk, and on the Murray River Bir-ben. (Fig. 40.) This weapon somewhat resembles a wooden sword used by north-east and northern tribes, and has a distinct boomerang-like curve. The handle is marked with deeply incised lines arranged in various ways. The weapon is made of heavy, dark wood, and was used as a club for fighting.

16-22. Victoria. 23. Northern Territory.

SERIES C.—Long clubs.

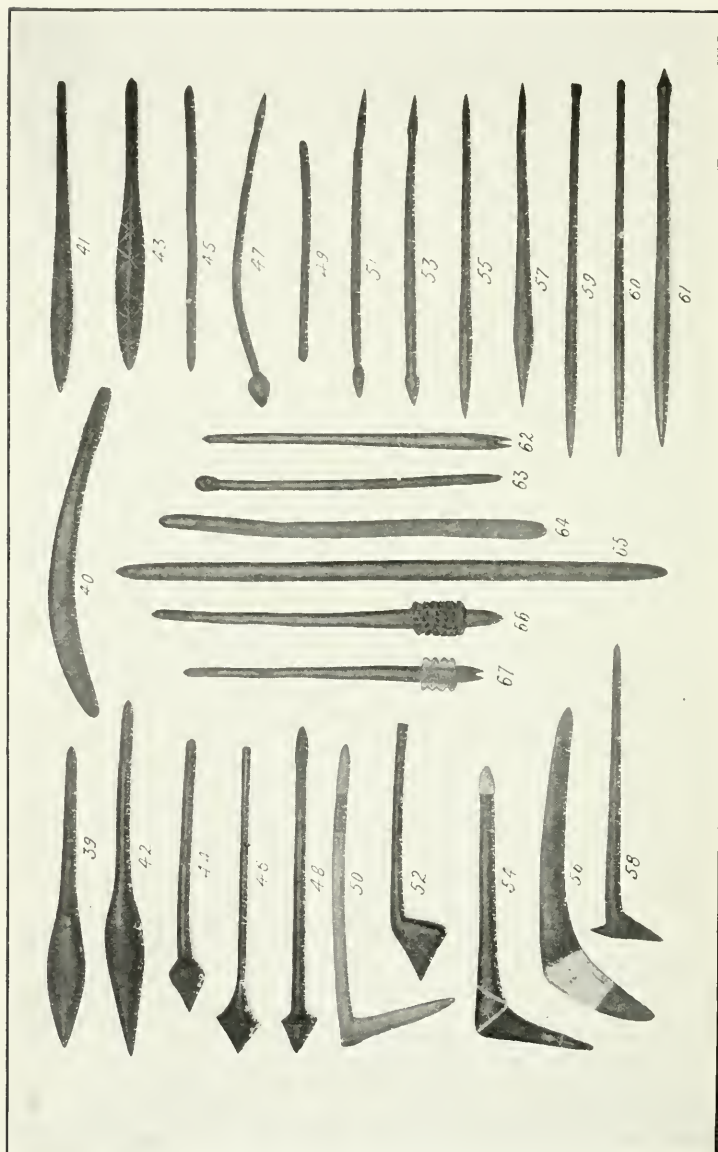
24. From the Ngurla tribe, Roeburn, Western Australia. Ornamented with zig-zag lines, and with a handle made of a lump of Grass-tree resin.

25.28. Four specimens from the Alligator River district and Port Essington, North Australia, in which, especially in 26, the handle end shows a curious concavity. The blade may be ornamented with designs formed of red, white, and yellow lines. Kakadu tribe, Alligator River, Northern Territory. Native name, Periperi.

29. Club made by the Iwaidji tribe, Coburg Peninsula, Northern Territory. Native name, Mabobo or Mapupu.

30. Club made by the Kulunglutji tribe, Alligator River district, Northern Territory. Native name, Wakerti. (28, 29, 30 presented by Professor Spencer.)

SERIES D.—This series illustrates the common forms of fighting sticks and clubs, some of which are thrown, while others are more frequently used in hand-to-hand encounters. The simplest form is merely a stick without any special head or handle, and was used both for digging and throwing; the more developed forms, commonly known as waddies or Nulla-nullas, have swollen or knobbed heads, and often a part modified to serve as a handle. The chief variations are represented by the following:—(1) A stick with one end roughened so as to afford a good grip, but with no definite head (52, 53, 54, 56.) (2) A form common to Victoria and New South Wales, characterized by a distinctly swollen head, which was sometimes strongly, sometimes slightly, marked, and by a handle cut so as roughly to represent a cone; in some cases the head was much more pointed than in others, and the weapon was apparently used both for throwing and in hand-to-hand encounters. Sometimes the



CLUBS.

body of the club was curved (70-72, &c.) (3) A series, the extreme forms of which differ very much from one another, but which are united by a connecting series of intermediate forms. The most characteristic feature of these is that the head, if present, is not sharply marked off from the body of the club, but is formed as a gradual swelling, which may be relatively of great size in proportion to the length of the weapon. The extreme form of this series is seen in the uppermost specimens (49-51), which are examples of a form called Kudgerong by the natives of the Yarra district. As in these specimens, the swollen head may be decorated with geometrical designs.

31, 32. Victoria. (Fig. 55.)

33. New South Wales.

34. West Queensland.

35. Roma and Mitchell districts, Queensland.

36. Upper Belyando River, Queensland.

37. Roma and Mitchell districts, Queensland.

38, 39. Queensland.

40. Normanton, Queensland. (Fig. 57.)

41. Victoria.

42. New South Wales.

43. Victoria. (Fig. 41.)

44. South Australia.

45-53. Various forms of Kudgerong from Victoria. (Figs. 39, 42.)

54. Victoria. (Fig. 49.)

55. Tasmania.

56. Western Australia.

57-59. Simple forms of sticks, used partly for throwing and partly for digging. Victoria. (Fig. 61.)

60. Nulla-nulla. New South Wales.

61. Throwing stick. New South Wales.

62. Throwing and digging stick. Victoria.

63. Throwing stick. New South Wales. (Fig. 60.)

64. Throwing stick. Victoria.

65, 66. Two waddies or Worrá-worrás, ornamented with a groove along each side of the blade, and provided with lumps of resin at the handle end. Victoria. (Fig. 59.)

67. Dowak, or throwing stick; Manang tribe, Western Australia. (Fig. 45.)

68. Waddy. Victoria.

69. Waddy. South Australia.

70. Woë-wurong tribe, Victoria.

71. Waddy; Buo-wurong tribe, Westernport. (Fig. 57.)

72. Woë-wurong tribe, Victoria.

73. Waddy. Victoria. (Fig. 47.)

74. Curved waddy with cone-shaped handle. Victoria.
75. Waddy. Victoria.
76. Worra-worra. Victoria.
- 77, 78. Two Konungs. Victoria.
79. Worra-worra; Woe-wurong tribe, Victoria. (Presented by Mr. F. McCubbin.)
80. Worra-worra. Mordialloc, Victoria. (Fig. 53.)
81. New South Wales.
- 82, 83. South Australia. (Presented by Professor Spencer.)

CLUBS. (Case 5.)

SERIES A.—This illustrates various forms of the club which was called in Victoria a Leonile. It was used in hand-to-hand fights, when the combatants protected themselves with a narrow form of shield called a Mulga. It was made out of a sapling, and the root end was utilized for the head.

1, 2, 3, 4. Clubs shaped somewhat like Leoniles. From Queensland.

5. A club shaped like a Leonile, but broader and flatter. (Fig. 56.) It is ornamented with a band on one side, which is filled in with incised lines. From Mackay, Queensland.

6. A somewhat similar weapon. From Mackay, Queensland.

7-12. A series of Leoniles showing slight variations in shape, but all agreeing in fundamental form. The handle is a swollen knob, rudely carved, and the head resembles in shape that of a pickaxe. All the specimens come from Victoria.

13. A more highly finished weapon of the same form. From Queensland. (Fig. 54.)

14. A specimen in which the head is of considerable length, and the handle end is devoid of the swollen knob. From Victoria. (Fig. 50.)

15. A weapon somewhat resembling the Leonile, but with a very short double-pointed head. From Victoria. (Fig. 58.)

SERIES B.—Weapons called Dowaks, used as missile sticks. One end is modified so as to form a handle, there being usually present at this end a large lump of resin. Into the latter there is often fixed a chipped piece of quartzite, and when this is present the weapon is called a Dabba (see small case of cutting implements). All of these specimens come from Western Australia, and a very similar one is found amongst

many Central Australian tribes, though amongst these it always has attached to it the piece of quartzite that is used for cutting.

16-18. Specimens without the lump of resin at the handle end, the latter being roughened so as to afford a good hold. (Fig. 64.)

19-24. Specimens with the lump of resin forming the handle. (Fig. 63.)

SERIES C.—This contains various forms of clubs from different parts of the continent.

25. A specimen made of heavy, dark wood, with a head of a very unusual shape. It is said to come from New South Wales.

26-27. Two clubs or waddies, which in shape are somewhat similar to a Lil-lil with a much swollen head. New South Wales.

28. A waddy, showing, perhaps, an exaggerated form of the swollen head end, as seen in the two former. (Fig. 52.)

29. A Nulla-nulla from Victoria, with a slightly curved handle ornamented with incised lines. Victoria. (Fig. 44.)

30. From Hergott Springs, Central Australia.

31. From Eyre Peninsula, South Australia.

32. From Lake Frome, South Australia.

33. A club in which the head end is not sharply marked off from the handle, ornamented with pigment. Cardwell, Queensland. Native name, Urgala.

34. A club from New South Wales, in which the gradually enlarging head end has one sharp edge.

35. Woman's fighting club. Diamantina River, Queensland.

36. A missile stick. Victoria.

37-38. Two specimens of the Kunin or Koumung. Kurrat tribe, Victoria.

39. An implement with the handle end roughly carved. It could be either used as a digging stick, for which purpose the point is flat and sharp, or as a missile stick. Victoria.

40. Throwing stick with notched end. Queensland.

41. A double-pointed Nulla-nulla. Mackay, Queensland. Native name, Miro. (Fig. 62.)

42. A Kudjerong, ornamented with incised lines. Victoria. (Fig. 43.)

43. Throwing stick with knobbed end. Darling River, New South Wales.

44. Club or throwing stick with rounded, knobbed end. York Peninsula, South Australia.

45. Club with large, sharply marked-off head. Lower Murray River, South Australia.

46. A waddy in which the handle is plain and the head is somewhat, but not so plainly, marked off from the handle as in the two succeeding ones. New South Wales. (Fig. 46.)

47-48. Two specimens of a club called Yeambern in which the head is very sharply marked off from the handle, and the end of the latter is carved, and in No. 47 knobbed. (Fig. 48.)

49. Club, handle grooved; head intermediate in form between Nos. 44 and 45. South Australia.

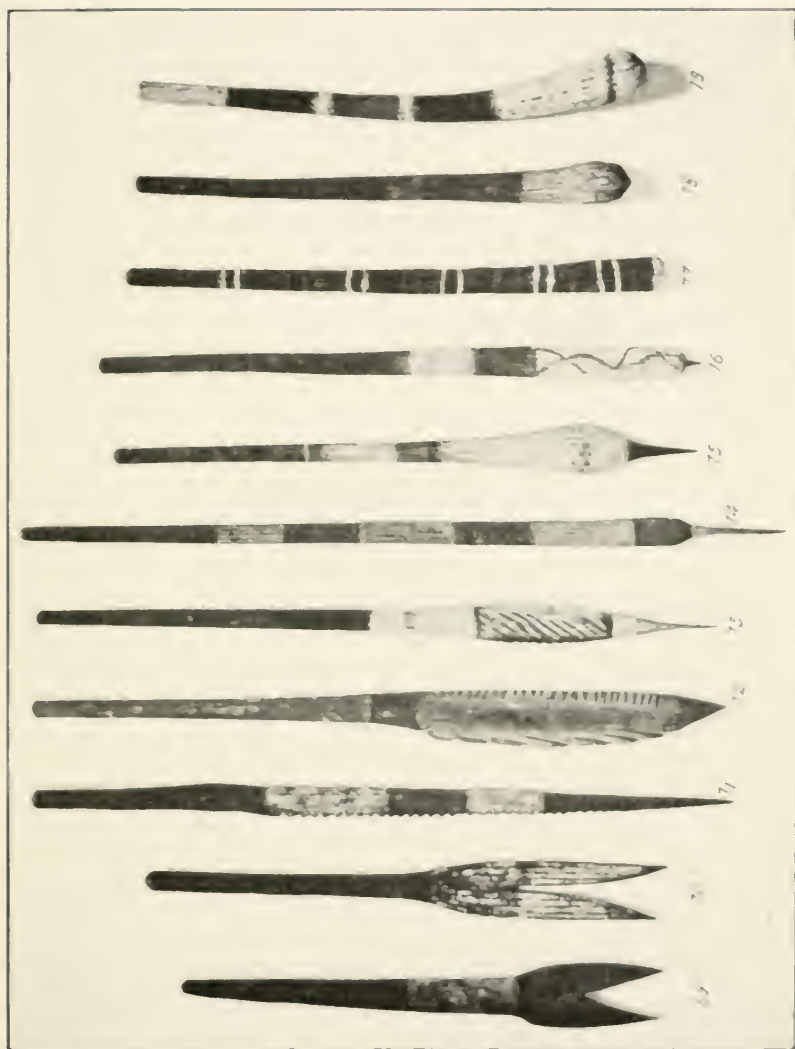
50-53. Four specimens in which, at a short distance from the head end, there is a swollen cylindrical part, the surface of which is carved so as to form a regularly arranged series of tooth-like projections. These are not so prominent in No. 50 as in the other two, and occupy a relatively still smaller space in No. 53. Queensland. (Fig. 66.)

54. A double-pointed club with teeth on two sides of the head end. The handle is roughly incised to help in grasping it, and the weapon is coloured red and white. Mackay, Queensland. Native name, Mattina. (Fig. 67.)

SERIES D.—55-60. Five specimens of weapons used as fighting clubs by women, and in the case of No. 60 as a digging implement also. 55. From the Warramunga tribe, Central Australia. 56. Warramunga tribe, Central Australia. (Fig. 65.) 57 is from the Eaw tribe, Northampton, Western Australia. 58. From the Macarthur River, Northern Territory. 59. From the Macarthur River, Northern Territory. 60. From the Whajook and Ballardon tribe, Western Australia; native name, Wanna. 61. Used as a grub stick or bark stripper; Victoria.

SERIES E.—Various forms of throwing sticks and clubs from Melville and Bathurst Islands. They are quite unlike any met with on the mainland, both in form and scheme of decoration.

62-86. The handle end, which is uppermost in each case, is clearly marked in most of the specimens. 63 has a pronged end, and is probably used also for throwing. 67 is a special form, called Arrawunagiri on Melville Island. The natives say that it is used for catching fish in the mangroves. The man sits on the tree and jabs it down on a passing fish. The barbs are merely ornamental, and copied from those on the spears, to which they are exactly similar. Traces of barbs are seen on 70, 72, and 73. 69-73 and 84-86 are pronged like some of the throwing sticks, but the prong is at the handle end.



CLUBS.

76-83. A series of pronged throwing sticks called *Japururunga*. (Figs. 69-70.) 75. Showing an interesting intermediate form between a throwing stick and a double-pronged spear (see *Spear Case*).

87-103. A series of unpronged throwing sticks. The simpler ones (87-94) are straight or slightly curved missiles with their surface distinctly fluted, and a swollen head end. 95, 96, and 97 are straight, with fluted surface and a short point rising abruptly from the truncated head end. 98, 99, and 100 have longer, tapering points, and 100 has also slight serrations on each side of the swollen head, leading on to 101 in which the serrations are strongly marked, and 102 in which there are serrations on one side and barbs on the other. 103 may be regarded as a special modification, in which the original swollen head is definitely marked off from the rest of the club, and the point is long drawn out. (Figs. 74-79.)

(Specimens 62-103 presented by Professor Spencer.)

SPEARS. (Case 6.)

The spears used by the natives vary much in form and in the material used in their construction in different parts of the continent. They may be divided roughly into the following series* :—

- A. Unbarbed and unhafted. These are made out of a single piece of wood, and terminate in a single point without anything in the way of a barb. 1. Hunting spear; Chiangwa tribe, Western Australia. 1x. Tasmania; presented by the Tasmanian Museum. 2. A hunting spear for throwing with the spear thrower; native name, *Bilara*; Whajuk and Ballardong tribes, Western Australia. 3. Wonnunda-minung tribe, Western Australia. 4. Woewurung tribe; Victorian name, *Koyung*. 5. Wonnunda-minung tribe, Western Australia; for throwing with the spear thrower. 6. Kardagar tribe, Western Australia; for throwing with the spear thrower. 7. Hunting spear; Australia. 8. Ornamented with incised lines; Arunta tribe, Central Australia. 9. Western Australia. 10. Arunta tribe, Central Australia. 11. A very heavy, solid specimen, probably made from the wood of the "desert oak"; Arunta tribe, Central Australia. 12. Specimen in which, as in

* The spears from Merville and Duffield Islands are so different in their form and destination from those of the mainland that they have not been included in this classification. D.P.A.C. illustrated separately.

the next two also, the blade end is flattened; the shaft is ornamented with longitudinal flutings; Arunta tribe, Central Australia. 13. A heavy specimen made of Mulga, and used during ceremonies, when it is decorated with birds' down, &c.; Arunta tribe, Central Australia. 14. A specimen in which the blade is still more broadened; Arunta tribe, Central Australia. 14A, 14B. Barrow Creek, Central Australia; presented by Professor Spencer and Mr. F. J. Gillen. 15. Woman's fighting stick, which is also used for digging, and may occasionally be thrown like a spear; native name, Wanna; Wonunda-minung tribe; Western Australia. 15A, 15B. Macarthur River, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen).

- B. Unbarbed and hafted. These may be again divided into two sets, in the first of which (16-24) the weapon is rounded along the whole length, while in the second the blade is flattened (25, 26). In the first of these two sets again two forms may be distinguished; in the one (16-19) the head is short and the shaft is long; in the other (20-24) the head is long and the shaft is short. 16. A specimen with light reed shaft, with a heavier wooden head, used for throwing with a spear thrower; Victoria. 17, 18, 19. Specimens with a light reed shaft and a heavier wooden head, used for throwing with the spear thrower; Northern Australia. 20. Fighting spear; native name, Kiero; Chiangwa tribe, Western Australia. 21. Hunting spear, made of three kinds of wood; a short, light handle, a longer shaft, and a heavier head; Northern Australia. 22. Fighting spear; native name, Kiero; Chiangwa tribe, Western Australia. 23. Fishing spear; Western Australia. 24. Fighting spear; Western Australia. 24A, 24B, 24C. Short fighting spears used by many tribes in the Northern Territory. They are made of a reed shaft, with a sharp heavy wood point, and are used with the spear thrower. The Kakadu tribe call them Kunjolio. 25. Hunting and fighting spear, with the shaft fluted and the head flattened and attached by kangaroo sinew; Arunta tribe, Central Australia. 26. Spear made principally of Mulga; the handle is short and the shaft long; used for throwing with the spear

thrower; total length, 10 ft. 1 in. 26a. Shar-
ings are left attached as an indication that the
spear is to be used for killing some one by an
avenging party; Arunta tribe, Central Australia
(presented by Professor Spencer and Mr. F. J.
Gillen). 26b. Similar to the stone-headed type,
with head of wood; Alligator River, Northern
Territory.

- C. Barbed and single pronged, with the barbs attached
to the blade by sinew or string, or one or other of
these, together with resin. These, again, may be
divided first into two sets, in one of which
(27-34) the head is rounded like the shaft, while
in the other the head is flattened. The first lot
may be divided further into two groups, in one of
which (27-30) the handle is hafted, and the
barb is made of bone; while in the second the
handle is not hafted and the barb is made of
wood. 27-29. Specimens from New South Wales,
in which the bone is fixed so as to form the point
of the prong as well as the barb. 31-34. Speci-
mens from Western Australia, with a broad, flat,
wooden barb. 35. Specimen with a blade made
of Mulga, and with a flattened head. Arunta
tribe, Central Australia.
- D. Barbed, with more than one prong. 36. Three
pronged, with separate bone barbs and points;
locality unknown. 36a. Four pronged, with the
bone fixed so as to form the point of the prong
as well as the barb; collected at Normanton, but
probably brought in from the west coast of the
Gulf of Carpentaria. (Presented by Professor
Spencer and Mr. F. J. Gillen.)
- E. Barbed, with the barbs cut out of the solid; not
hafted. 37. Specimen with a single barb; native
name, Koyun; Victoria. 38-42. Multi-barbed
specimens; the number of barbs varies from 6 to
18; Victoria. 43-45. Three specimens from
Western Australia; Mindern tribe. 46, 47. Two
specimens from the Northern Territory.
- F. Barbed, with the barbs cut out of the solid; hafted;
the barbs on one side of the head only. 48.
Specimen with hafted head and handle, and with
only one barb; Majanah tribe, Western Australia.
49, 50. Two specimens with heavy wood shafts;
Nichol Bay, Western Australia. 51. Specimen
with light reed shaft; New South Wales. 52, 53.

Two specimens with heavy wood shafts; Northern Territory. 54-59m. A series of specimens very characteristic of the Northern Territory, with light reed shafts. 59c-59m. Macarthur River, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen). 59n. A special form in which the barbs have not been cut through. This is made by tribes such as the Kulunglutji, living to the east of the Alligator Rivers, and is called Mikul by them.

- G. Barbed on two sides; not hafted; blade flattened. 60. Fighting spear; Northern Territory. 61. Fighting spear; native name, Mongoli; Victoria. 62. Specimen from Inderu tribe, Ashburton River, Western Australia. 64. Specimen from Northern Territory.
- H. Barbed on both sides; head hafted. 65. Specimen from Nichol Bay, Western Australia. 66-68e. Specimens from Northern Territory. 68a. Binbinga tribe, Macarthur River, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen).
- K. Barbed on more than two sides; head not hafted. 69, 71, 72. Specimens from Western Australia.
- L. Barbed on more than two sides; hafted. 70, 72a. Specimens from Northern Territory. 73, 74. Two specimens from Western Australia.

SPEARS. (Case 7.)

- M. Two-pronged spears. Not hafted. This is a very rare form on the mainland, but is met with more often in Melville and Bathurst Islands (Case 8, No. 51). There are no barbs. 75. Northern Territory.
- N. Two-pronged spears. Hafted. The prongs are barbed, with the barbs on opposite sides. 76. From the Northern Territory. 77. From the Macarthur River, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen).
- O. Multi-pronged spears. 78-82. From the Northern Territory, of which district they are very characteristic; each of them has three prongs, and the shaft made from a light reed. 82a. Roughly made specimen, with four prongs, used for spearing eels; North Queensland.

P. Single stone headed spears. These may be divided into two groups:—(1) Those which are hafted, and (2) those which are not hafted. 83. From the Northern Territory, with a quartzite head. 84. From the same locality, with a long reed handle and a quartzite head. 85. From Northern Territory: the quartzite head is distinctly chipped. 86. From Northern Territory. 87. From Northern Territory, with a slate head; this specimen has been traded down to far south of the Macdonnell Range. 87a, 87b. With quartzite heads. Northern Territory. 87c. Decorated quartzite head; Tennant Creek, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen). 87d. Head of quartz; Alligator River, Northern Territory. 88, 89. With heads of quartzite; East Kimberley, Western Australia. 90, 92, 93, 94, 95. Were secured amongst the natives of the Arunta tribe, having come down from the north, and are of interest owing to the fact that they were reputed to have been endowed with magic power by the men of the tribe to which they originally belonged; the slightest wound caused by them was much dreaded, as being sure to be followed by fatal results (presented by Professor Spencer and Mr. F. J. Gillen). 91. Slate head; Northern Territory. 91a, 91b, 91c. Heads of quartzite; Macarthur River, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen). 93a, 93b. Heads of opaline quartz and flint; Tennant Creek, Central Australia (presented by Professor Spencer and Mr. F. J. Gillen). 93c. Head of quartzite; Macarthur River, Northern Territory (presented by Professor Spencer and Mr. F. J. Gillen). 95a. Head of flint; Daly River, Northern Territory. 95b. Head of quartzite; Tennant Creek, Central Australia (presented by Professor Spencer and Mr. F. J. Gillen). 96. A specimen showing the replacement of the original quartzite by glass. In many cases at the present day glass bottles are used in preference to stone.

Q. Multiple stone headed spears. These may be divided into three groups:—(1) Those with flakes on one side only, (2) those with flakes on two sides, and (3) those with flakes on three sides. 97. Specimen with seventeen flakes, arranged in a single

row; Kardigur tribe, Bunbury, Western Australia. 98. Specimen from Western Australia; the original quartzite has been replaced by glass. 100. Specimen from the Whajuk and Ballardong tribes, York district, Western Australia; the flakes are arranged along three lines. 101. Specimen with the flakes arranged along two lines, and with the long shaft ornamented.

R. Single-pronged, hafted, bone-tipped spear. 102. Tipped with kangaroo bone, called Jiborn; Kakadu tribe, East Alligator River, Northern Territory. (Presented by Professor Spencer.)

S. Four-pronged, hafted, bone-tipped spears. There are two types of these; in each the four prongs are inserted in a reed shaft, the prongs being made to diverge by means of small rolls of "paper-bark" placed between their proximal ends which, enclosed in the reed shaft, are bound round with string. In the first the reed shaft is very short, and in the second it is long. 105, 106, 107. Short-handled; native name, Kujorju; Kakadu tribe, East Alligator River, Northern Territory. 108. Long-handled; native name, Kunbarta; Kakadu tribe, Northern Territory. (105-108 presented by Professor Spencer.)

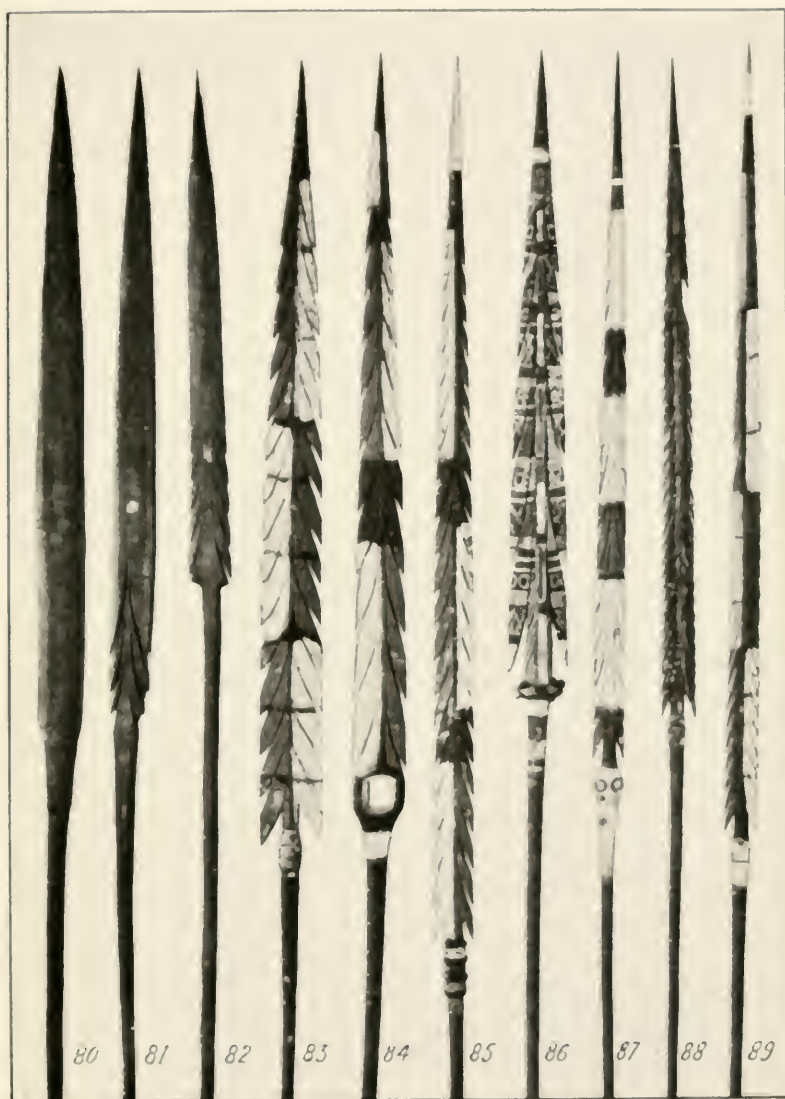
T. Unclassified spears. 102. Head pointed with a number of tail-spines of the Sting Ray; Normanton, Gulf of Carpentaria, Queensland. 103. Head barbed with rows of Echidna quills, and decorated in red and white; North Queensland.

SPEARS. (Case 8.)

A series from Bathurst and Melville Islands. They are characteristic of these islands, and are remarkable by reason of their relatively ponderous weight and size, and also because of their scheme of decoration. They might better be described as javelins. All of them are thrown by the hand, no spear thrower being apparently used on these islands. In no case is there any hafting, though there are indications on some that hafting may have once been employed. They may be divided into two groups:—

1. Single pronged. These again may be divided into (A) barbed and (B) unbarbed, of which the former are much more numerous:—

A. Barbed spears. (Figs. 80-89.) 1. Barbed on both sides (1-27). In the majority (1-14) the barbs are flat, broad, and leaf shaped. This is well



SPEARS

shown in 1, 9, and 14. The spaces between successive barbs are very narrow, and in many cases not more than half or even a third of the barb may be actually separated from the central shaft. 10, 11, 12 are specimens in course of manufacture. The cutting instrument used is a shell (*Cyrena* sp.), which forms a very effective implement. In 16-24 the barbs are relatively longer and narrower. In 25-27 the barbs are comparatively small. In 27 four at the proximal end are turned the wrong way. The Melville Island name of these double-barbed spears is *Tunkuleti*. 2. Barbed on one side only (28-45). There is great variation amongst these in regard to the number, size, and arrangement of the barbs. In 28-39 they are similar to one of the rows on the double-barbed forms. In some cases (31) the barbs are broad, in others (32) they are narrow. These spears are all called *Amurgitch*. These grade into spears such as 40-45, in which the barbs are smaller in size, fewer in number, and, as in 45, much farther apart from one another.

B. Unbarbed spears. These are few in number, and are represented by 46-48. 46 is a simple pointed stick. 47, 48 are remarkable forms with a blunt and swollen instead of a pointed end.

2. Double pronged. These are not very common, and may be divided into two groups:—

A. Barbed. 49 has one barb on each side, each of the main prongs having a distinct resemblance to a much-enlarged barb. In 50 each prong with its row of barbs is precisely similar to the barbed end of an *Amurgitch* spear.

B. Unbarbed. 51-53. Of these, 53 is relatively a short one, and is interesting as affording a transition to such forms of clubs as No. 75 in Case 5.

The decoration of the spears is very characteristic. In the first place, though there is never any befitting, the place of union of the main shaft and the barbed portion is often indicated by a mass of wax, which may (3) be ornamented with rings of *Abrus* seeds, or (7, 8, 9) the shaft may be more or less swollen out here and pierced through by one or two openings. (Figs. 84, 87.) The barbed part is always divided

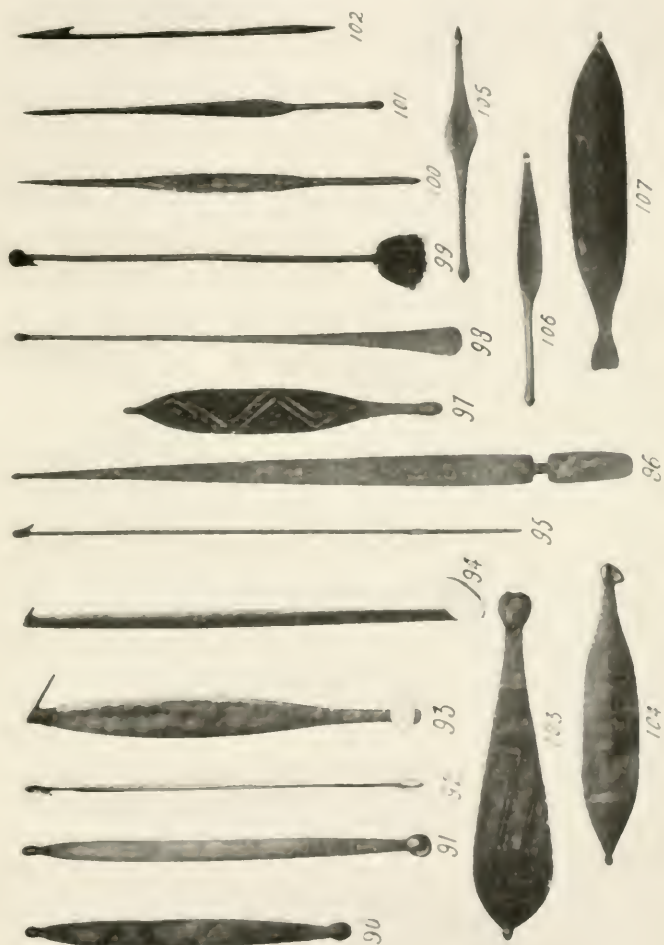
into areas varying in length. In some cases (4, 5) a succession of bands of red, white, and yellow runs across the barbs from side to side, but very often one side of a cross band is coloured yellow, the other white, the two colours alternating in successive areas or bands (1, 3, 9). In 14, 15, 16, 17, and 33 a very different scheme is adopted. The whole surface has been covered with black, and on this various designs—circles, dots, lines, and bands—are drawn in red, yellow, and white. (Fig. 86.) (All the specimens in this case were presented by Professor Speneer.)

SPEAR THROWERS. (Case 9.)

The spear thrower is one of the most characteristic of the weapons of Australian natives. It varies much in shape in different parts of the continent, but always consists of a stick, to one end of which there is attached a point of wood, bone, or resin, which fits into a small hole at the extremity of the spear. By its means a great leverage is obtained, and the spear can be thrown with considerable accuracy.

SERIES A.—This illustrates a form very common in Victoria and New South Wales. The flattened blade varies considerably in shape, and in some, such as 16, is of almost even width along its entire length; while in others, such as 2, it assumes an elongate leaf shape, and has one surface, the upper when in use, concave, and the lower surface distinctly convex. In all of the specimens the point is a part of the wood forming the blade, and not a separate structure joined on. The woods most frequently used for making the spear throwers are said to be the "Cherry" tree (*Exocarpus cupressiformis*) and the Blackwood (*Acacia melanoxylon*). The common name for these implements now applied to them by white men over the whole of Australia is Womera (variously spelt), but it must be remembered that this name was originally only of local application. In Victoria it was known under the names of Kuruk or Guruk (Yarra tribe), Muriwun (Kurnai tribe).

As a general rule the handle does not show the distinctly swollen end which is very characteristic of the spear throwers of Central, Western, and South Australia, and Queensland, but occasionally this feature may be present, as in 4 and 13. In some cases the implement may have no ornamentation, but in others one or both of the sides may be ornamented with incised lines, representing human or various animal figures or geometrical designs.



SPEAR THROWERS

1. Kuruk; Victoria. 2. Womera; New South Wales.
 3. Muriwun; Woewunrong tribe, Victoria. 4. Ornamented
 Muriwun; Woewunrong tribe, Victoria. 5. Womera; New
 South Wales. 6. Ornamented Kuruk; Victoria. 7. Kuruk;
 Avoca, Victoria. 8-11. Kuruk; Victoria. (Figs. 100, 102.)
 12. Muriwun; Kurnai tribe, Victoria (presented by Dr. A.
 W. Howitt). 13-16. Kuruk; Victoria. (Fig. 101.)

SERIES B.—These spear throwers (17-20) are characterized principally by the fact that the point is not cut out of the solid, as in the previous series, but is attached to the blade by means of string enclosed in resin. The point may be formed either of bone or wood. 17-19 come from Victoria, and 20 from New South Wales. (Figs. 105, 106.)

SERIES C.—This series illustrates various forms of spear throwers found in Central and Western Australia, and shows, on the one hand, the transition from a narrow, straight stick to the broad, concave, unornamented form characteristic of such tribes as the Arunta and the Luritja; and, on the other hand, the transition from the same to the broad, flat, ornamented implement which is characteristic of many Western Australian tribes. In all of them the handle has a swollen end with a knob made of resinous material, in which is often fixed a piece of quartzite chipped so as to form a cutting edge, which is used in the manufacture of wooden implements.

Starting from 32 and passing upwards it is seen that the blade gradually increases in size, assuming at the same time a leaf shape; while in the upper ones it gradually becomes more and more concave, the extreme form being seen in 23, which is a specimen from the Luritja tribe in Central Australia. In all these specimens there is no attempt at any carved pattern, ornamentation being limited to designs in pigment, as in 22, though even this is rarely seen, and is only met with when the weapon is being used for some special ceremony. Passing downwards from 32 the blade gradually increases in size, and assumes a leaf-like form, but at the same time it remains quite flat, and is characterized by the development of a highly ornate, incised pattern, consisting for the most part of zig-zag lines, a pattern which is very distinctive of various Western Australian weapons.

21-25. From the Arunta and Luritja tribes, Central Australia. The best-made specimens of this type of spear thrower come from the Luritja tribe. Into the resinous mass at the handle end there is usually fixed a piece of quartzite, which is used for many purposes, such as making all kinds of

wooden implements, cutting open the bodies of animals, &c. During the preparation for various ceremonies the spear thrower serves as a receptacle for the down and colouring material with which the bodies of the performers are decorated. (Fig. 107.)

26, 27. Western Australia. In these two specimens the blade is flat, and at the handle end the knob of resin is inclined at an angle to it. (Fig. 104.)

28-31. Western Australia. These specimens illustrate the transition from the leaf-shaped form to the narrow stick. (Fig. 90.)

32. A narrow, straight form, from the Wonunda-minung tribe, Western Australia.

33. A somewhat broader form, ornamented with rough grooves. Western Australia.

34. A broad, flat form, ornamented with characteristic incised lines. Majanna tribe, Roeburn, Western Australia. (Fig. 97.)

35, 36. Two broad, flat forms, ornamented with characteristic incised lines. Ngurla tribe, Roeburn, Western Australia.

37. A still broader form, ornamented with rough grooves and a zig-zag pattern of incised lines. Ngurla tribe, Roeburn, Western Australia. (Fig. 103.)

38. A specimen differing from the others in the series in having the knob of the handle cut out of the solid wood, and not formed of resin. Lake Callabonna, South Australia. (Presented by Professor Spencer.)

SERIES D.—39-45. A special form of spear thrower, only found in certain parts of Queensland. Unlike almost all other spear throwers, the point for insertion into the spear end is so attached that it projects in the plane corresponding to the one in which the blade is flattened. There is thus very little resistance of the air to be overcome, as the thin edge of the blade offers the smallest possible surface, and in this respect contrasts strongly with the broad area which is opposed to the air in the case of the typical Central and Western Australian forms (21-38). Another very characteristic feature is the double shell handle, the two halves being fastened together, and also attached to the stick at various angles, by means of Grass-tree resin. There is a remarkable variation in the length of the wooden point, the longest one measuring 5 inches, and the shortest 1 inch; while there is also considerable difference in the width of the lath-like blade, the broadest measuring $3\frac{1}{2}$ inches, and the narrowest $1\frac{1}{2}$ inches. The wood is usually a species of acacia, but in some cases a light wood is employed (44). All the specimens come

from Queensland, where they are met with over an area lying to the south of the Gulf of Carpentaria. (Figs. 92, 93, 94.)

SERIES E.—Various elongate forms of spear throwers, in all of which the blade is narrow, and the wooden point is attached by string enclosed in a mass of resin.

46. Womunda-minung tribe, Esperance Bay, Western Australia. This and the next one have a piece of quartzite used for cutting purposes inserted in the mass of resin at the handle end.

47, 48. Eaw tribe, Northampton, Western Australia. (Fig. 91.)

49, 50. Worgaia tribe, Central Australia. These have a tassel of strands of human hair string attached to the handle, which, together with the smooth, rounded form of the blade, are characteristic features not met with in other specimens. The native name is Nulliga. (Fig. 99.)

51. Same as 49 and 50; from the Anula tribe, Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen.)

52. New South Wales (exact locality not known; probably from the far interior). (Fig. 98.)

53. North Australia (exact locality unknown). In this and the previous one the point is a flattened piece of wood, and the blade gradually increases in width towards the end, which is held in the hand.

54, 55. Made out of some light wood, such as the bean tree (*Erythrina vespertilio*). The handle has two deep notches to assist in holding the weapon, which is red colored, and may be decorated with designs in red, black, yellow, and white pigment. East Kimberley, Western Australia. (Figs. 95, 96.)

56, 57. Similar to the two former; from the Warramunga tribe, Central Australia. Native name, Wanyia.

58. Macarthur River, Northern Territory.

59. Made out of hard wood. Warramunga tribe.

SERIES F.—A rare form, boomerang shaped. The point is attached as in Series D. There is no distinct handle.

61. From North Queensland.

SERIES G.—A form with a thin cylindrical shaft. The point is formed of resin, with which also the handle end is covered. It is used in the Northern Territory for throwing light reed spears (60).

SERIES II.—A rare form found only amongst certain tribes, such as the Kakadu, inhabiting the coastal area of the Northern Territory. It is remarkable for its very thin, curved blade. The point is attached by string to the side of the blade, and the handle is always made of wax derived from the Ironwood tree (*Erythrophloeum labouchei*), and ornamented with a string pattern. The Kakadu name is Palati (62-67).

66, 67. In course of manufacture. (64-67 presented by Professor Spencer.)

WOODEN VESSELS, NETS, BAGS, BASKETS, Etc. (Case 10.)

Various forms of vessels for carrying food, water, &c., are found all over the Continent, and different names are given to them in different tribes. A term very often applied to them by white men among the eastern tribes is Kuliman (variously spelt); but this word, so far as the natives are concerned, is of local application only, the word belonging to the Kamil-roi dialect in New South Wales. In many cases they are made out of the inner layer of the bark of an excrescence of a gum tree, and the same name is applied to the excrescence itself. Very often, however, they are made out of the solid wood of a limb of a gum or other hardwood tree which has a suitable bend. In this case the solid block is cut away from the tree and the interior is hollowed out partly by burning, and partly by gouging by means of an adze-like instrument, the outer surface being trimmed into a more or less symmetrical shape. In the case of the soft wood of the coral or bean tree, which is largely used in certain parts, a solid block is first cut, and then the outside is chipped to the desired size and shape, the inside being afterwards gouged out. The perfect symmetry of the lines of some of these soft-wood vessels is remarkable, when it is remembered that all the work is done with a sharp-edged stone.

In form some are deep and narrow, and suitable for carrying water. One distinct type of this kind has a remarkable resemblance to a boat, though it is made by Central Australian natives who have never seen one. Others are very shallow, and may be of small size, when they are used as a scoop for clearing earth away while the native digs down in quest of small animals or roots upon which he feeds; or they may be of large size, when they are used for carrying food or even small children. The outer surface may be either carefully smoothed down, or be covered with regular or irregular grooves, or it may be left in its natural condition if the wood has been cut off from a tree in the form of a bole or gnarl.



WOODEN VESSELS

1-7. Boat-shaped vessels made out of the soft, light wood of the bean tree (*Erythrina respectilis*). The outer surface is always grooved, the shape of the grooves, which are remarkably regular, corresponding to the convex edge of the stone with which they are cut. The vessels when finished are always covered with red ochre, and may be ornamented with lines of yellow, black, and white pigment. They will stand on the ground without support, and are capable of a considerable amount of rocking before they overturn. 1. From Borrooloola, Gulf of Carpentaria. (Presented by Sergeant Dempsey.) 2-6. From the Warramunga tribe. 7. Tjingilk tribe, Powell Creek, Central Australia. (Fig. 112.)

8. Smooth hardwood vessel, capable of carrying water. Eaw tribe, Northampton, Western Australia. (Fig. 111.)

9. Central Australia.

10, 11. Macarthur River, Northern Territory.

12, 13. Barrow Creek, Northern Territory.

14-20. Kimberley district, North-west Australia.

21. Child's play vessel. Kimberley district, North-west Australia.

22, 23, 24. Heavy hardwood vessels cut from the bent limb of some gum tree. The labour involved in making these is very great. They are used for carrying food, and sometimes small children. They are carried poised on the head or resting against the hips, and may be supported by a cord often made of strands of human hair string, which passes across the opposite shoulder. Arunta tribe, Central Australia. Native name, Tanna or Tunna. The wide open ends of this form render it unsuitable for carrying water.

25. Small hardwood vessel, used as a scoop. Western Australia. Native name, Waalbi. (Fig. 108.)

26. Small hardwood vessel. Barrow Creek, Northern Territory.

27. Small hardwood vessel, with the grooves very regularly cut and small. Arunta tribe, Central Australia.

28. Small soft wood vessel made of the wood of the bean tree (*Erythrina respectilis*), with broad grooves. Arunta tribe, Central Australia.

29. Large hardwood vessel cut out of the wood of a gum tree (*Eucalyptus gomphocephalus*). Gaurin tribe, Western Australia. Native name, Yandi or Thacka.

30. Hardwood vessel made of Jarrah (*Eucalyptus marginata*). Eaw tribe, Western Australia.

31, 32, 33, 34, 35, 36, 37, 38. Large, shallow, softwood vessels made of the bean tree (*Erythrina respectilis*), grooved

and red ochred. Warramunga tribe, Central Australia. (Fig. 116.)

39. Large hardwood vessel, with regular grooves, made of the wood of a gum tree. Arunta tribe, Central Australia.

40. Large hardwood vessel, with the surface covered with small, broad grooves. Gnurla tribe, Western Australia.

41. Small hardwood vessel, with the sides curled round, and the two ends shallow. Arunta tribe, Central Australia. (Fig. 115.)

42. Hardwood vessel. Arunta tribe, Central Australia.

43, 44, 45. Hardwood vessels. Barrow Creek, Northern Territory.

46. Hardwood vessel. Tennant Creek, Northern Territory.

47. A shoe-shaped vessel, used for drinking, and evidently hollowed out from the bole of a tree. Yarra tribe, Victoria. Native name, No-bin-tarno. (Fig. 117.)

48. A large vessel made out of a hollowed-out bole. The cavity was made partly by fire and partly by gouging. It was not carried about, being too heavy for this, but was used when in camp for making a favourite beverage of the natives, which consisted of an infusion of the flowers of honeysuckle and box (the natives of Central Australia in the same way make an infusion of the flowers of a species of *Ilakea*). Yarra tribe. Native name, Tarnuk, Bullito, or Bullarto. (Fig. 113.)

49. Vessel formed of the bark from the bole of a gum tree. The walls are very thin, and it was carried about full of water as the natives travelled. Yarra tribe, Victoria. Native name, Tarnuk. (Fig. 110.)

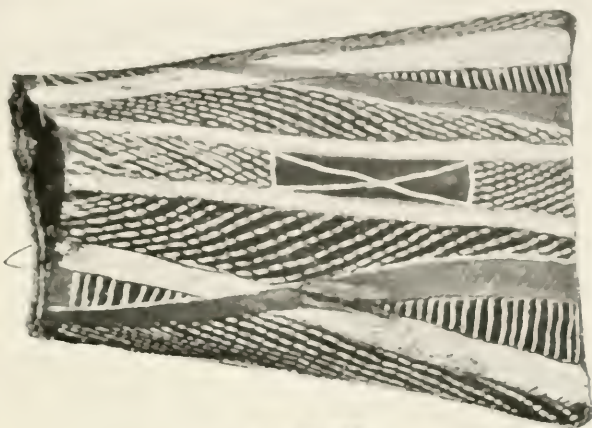
50. A wooden vessel made from the bole of a gum tree, used for carrying water while on the march. Victoria. Native name, Tarnuk. (Fig. 118.)

51. A shell used for holding water. Western Australia. (Fig. 114.)

52. Drinking vessel of *Haliotis* shell. Eyre's Peninsula, South Australia.

Specimens 53-135 illustrate various implements manufactured from twine, fur, bark, and the skins of animals. The twine is made from different material, such as vegetable fibre, grass, reeds, palm leaves, human hair, and fur. For large baskets the natives used the leaves or stalks of the common reed (*Phragmites communis*), Lawyer canes, or of grasses such as *Poa Australis*.

53. A net made of the grass *Spinifex longifolius*. Gnurla tribe, Western Australia.



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BARK BASKETS.

54. A fishing net of the grass *Spinifex longifolius*. Min-darn tribe, north-west coast.

55, 56. Bags made of the grass *Spinifex longifolius*. Gnurla tribe, Western Australia.

57. Bag. Cape York Peninsula, Queensland.

58. Net bag. Woewurong tribe, Victoria. Native name, Belang.

59. Vegetable fibre made from the Chipang bush, used by the natives of the Arunta and other Central Australian tribes in making twine.

60. Vegetable fibre called Pongo. Arunta tribe, Central Australia.

61. Narrow bag made of Pongo and human hair. Arunta tribe, Central Australia.

62. Fishing net made of Kangaroo grass (*Anthistiria ciliata*), called by the natives of Gippsland, Karn. Lake Tyers, Gippsland.

63. Net bag with mesh similar to that of the fishing nets.

64. Net bag. Princess Charlotte Bay, Queensland. The lower part is coloured with a red pigment.

65. Net for catching wallabies, made of emu and wallaby sinew and vegetable fibre. South Arunta tribe, Central Australia. Native name, Mintu.

66. A fishing net. Anula tribe, Macarthur River, Northern Territory.

67. Fishing net on wooden frame. Guanji tribe, Northern Territory.

68. Net bag of coarse string, with the ends drawn together with string. Anula tribe, Macarthur River, Northern Territory.

69. Eel trap, called Yingar. Russell River, Queensland.

70. Net bag. Victoria.

71. Dilly bag. Arunta tribe, Central Australia.

72. Small bag used for holding birds' down. Macarthur River, Northern Territory.

73. Dilly bag, containing a sacred calcite stone; said to be used as a charm, and held between the teeth during a fight to protect the owner from injury by his enemy. Lake Frome, South Australia.

74. Net bag. Queensland.

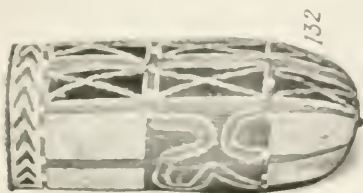
75. Hand net used for procuring bait for fishing. It is stretched on a bow, let down to the bed of a stream, and drawn through the water by women. Lake Tyers, Victoria. Native name, Lowru.

76. Net bag. Queensland.

77. Net bag. Nôgoa River, Central Queensland.

78. Net bag. Victoria.

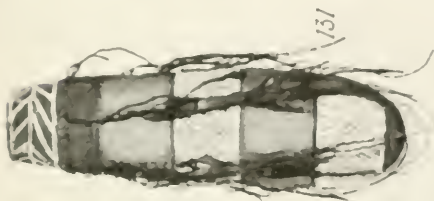
79. Net bag. Cape York Peninsula, Queensland.
80. Net bag. Locality unknown.
81. Piece of fishing net. Queensland.
82. Net bag. The twine is made from the fibrous bark of a gum tree (*Eucalyptus obliqua*). Woewurong tribe, Victoria.
83. Net bag. Normanton district, Gulf of Carpentaria, Queensland.
84. Fishing net. Queensland.
85. Fishing net. Worgaia tribe, Central Australia.
86. Net Bag. Victoria.
87. Fur-skin wallet. Luritja tribe, Central Australia. This is made by stuffing with sand the skin of a newly-killed animal until it is dry and stiff and will retain its shape.
88. Rush basket made from the leaves of *Juncus gracilis*. East Kimberley, Western Australia.
89. Rush basket. Victoria.
90. Dilly bag. New South Wales.
91. Rush basket. Victoria.
92. Basket ornamented with designs in pigment. Queensland.
93. Large basket made of Calamus palm. Cardwell, Queensland. Native name, Djowan.
94. Small basket. Pyalong, Victoria.
95. Basket. Cairns, Queensland.
96. Basket ornamented with designs in pigment. Burdekin River, Queensland.
- 97-111A. A series of plaited baskets. The material used is stiff grass stalks, rushes, thin pliant twigs, and split cane. In some such as 111 the meshwork is open; in others such as 100 it is so close that the basket is used for carrying honey. In the case of the latter especially the surface is of such a nature that it lends itself to decoration, which may include conventional drawings of human beings, bands, and rectangular patches of red and yellow ochre, charcoal, and pipeclay. They are carried by women, and are often worn down the middle of the back suspended by a loop of string across the forehead. (Figs. 129-136.) Northern Territory.
- 111B. Basket-work bag with a peculiar funnel-shaped mouth; worn suspended down the back during the performance of a special sacred ceremony, called Ober, amongst the Kakadu tribe, East Alligator River, Northern Territory. (Presented by Mr. P. Cahill.)
- 111C. Ornament made in imitation of a basket-work bag and worn, suspended down the back, during the performance of a special sacred ceremony called Ober, amongst the Kakadu



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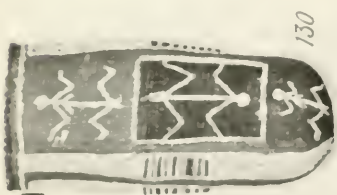
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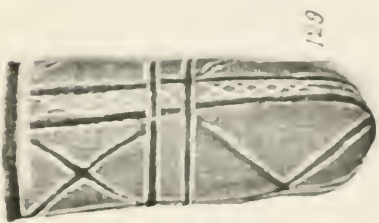
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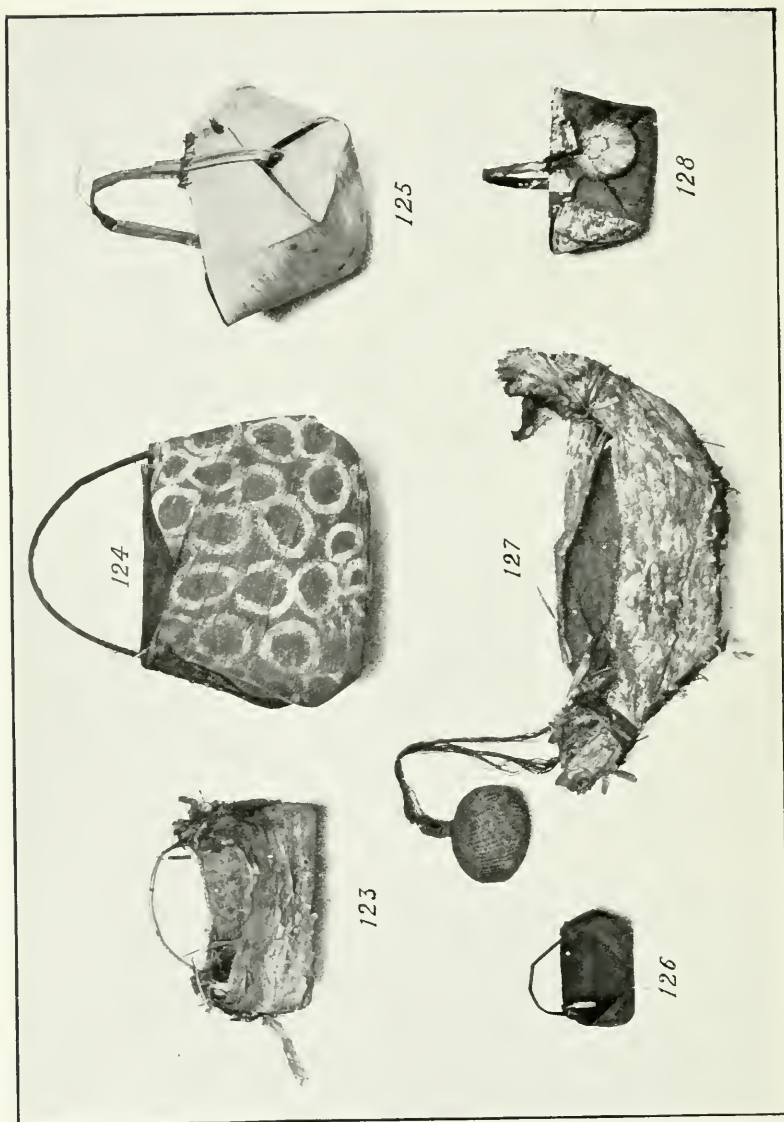
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BASKETS.

Tribe, East Alligator River, Northern Territory. The upper end is tightly bound round with string enclosed in beeswax. (Presented by Mr. P. Cahill.)

112. Large basket. West Australia.

113. Fibre called Widjing-ni, used in making the Midjeer.

114-121. A series of baskets made from the Lawyer cane or from the Calamus palm, with pointed ends. Native name, Djowan. Cardwell and Cairns district. Some of them are ornamented with designs in pigment.

122, 123, 124. Bark vessels. Cardwell district, Queensland.

125. Specimen showing the commencement of a basket. Victoria.

126, 127. Bark rope. Macarthur River, Northern Territory.

128. Bark used in manufacture of string, in raw and prepared states; and bag in course of making. Daly River, Northern Territory.

129. Small bag in course of manufacture from bark string and string of Pandanus leaf. Daly River, Northern Territory.

130. Pandanus leaf used in manufacture of string, in raw and prepared states; and bag in course of making. Daly River, Northern Territory. It will be noted that native string is invariably two-ply.

131, 132, 133, 134. Barks, and cords prepared from them. Macarthur River, Northern Territory.

135. Water vessel made out of a kangaroo (*Macrogus rufus*) skin. Tennant Creek, Northern Territory.

136. Basket. Lower Murray River, Victoria. Native name, Midjer.

137. Basket. Lake Conalsh, Victoria.

138. Basket. Yarra tribe, Victoria. Native name, Binouk.

139. Basket. Western District, Victoria.

140. Basket. Victoria. Native name, Binouk.

141. Wooden vessel for carrying food and water. Mortlake, Victoria. (Presented by Mr. H. Quiney.)

142. Basket. Mortlake, Victoria. (Presented by Mr. H. Quiney.)

143. Bark vessel for carrying food. Roper River, Northern Territory. (Presented by Professor Spencer.)

144, 145. Circular rush-work mats, used also as baskets when folded up. Lake Alexandrina, South Australia.

146. Basket-work mat made of Pandanus leaf, used by women of the Kakadu tribe, East Alligator River, Northern Territory. (Presented by Mr. P. Cahill.)

147. Eel trap of rush-work, open at both ends, with a funnel-shaped mouth. When setting the net, a small peg was inserted so as to close the smaller end. When the trap was full, it was taken out of the water and the peg carefully withdrawn. As the eels emerged at the narrow end, it is said that the aborigines bit their heads and drew them out with their teeth one at a time. Condah, Victoria.

ARTICLES OF CLOTHING. (Case 11.)

In many, but by no means all, parts of Australia the natives availed themselves of the furred skins of the larger marsupials, such as wallabies and kangaroos, to make cloaks. They were, as seen in 1, made by stitching several skins together by means of twine, usually spun from vegetable fibre. In some cases, as amongst various Victorian and New South Wales tribes, the inner side was ornamented with designs. The fur skins were also utilized for the purpose of making bags and wallets, which were worn on the back, supported by a band passing over the forehead or shoulders; in the larger of these small children could be carried.

1. A woman's fur cloak of kangaroo skin, worn with the fur next to the body. Kardagur tribe, Bunbury, Western Australia. Native name, Buka or Boka.

2. The same rolled up, in which state it is often used to produce a sound by beating upon it with a stick to keep time with the dancing during the performance of a corroboree. Whajuk and Ballardong tribes, Western Australia.

3. Another specimen of the same; from the York district tribe, Western Australia.

4-6. Specimens of the bag or wallet carried on the back. Native name, Kutah. 4. From the Minung tribe, King George's Sound, Western Australia. 5. Eaw tribe, Northampton, Western Australia. 6. Whajuk and Ballardong tribes, York, Western Australia.

7, 8. Pieces of bark cloth. Queensland.

9-12. Emu feather girdles, worn round the waist by women during the performance of corroborees. The feathers are tied in tufts of six or more, and then all of the tufts are attached by means of twine to a strand which passes round the waist and is tied behind the body. The native name for the girdle amongst the Yarra and coastal tribes was Til-bur-nin or Jerr-larr-ning.

13, 14. Pieces of the skin of the Euro (*Macropus robustus*) in process of manufacture for a cloak. Lake Frome, South Australia.

15. Mar-a-bu, a small triangular mat made from *Prokumia* leaves. It is the only article worn by women of the Liverpool River district, Arnhem Land, and, when in use, hangs down the back, suspended from a string round the neck. It gives the wearer, seen in the distance, very much the appearance of an eun. (Presented by Mr. P. Cahill.)

CLOTHING AND ORNAMENT. (Case 12.)

1. Necklace formed of a strip of kangaroo leather, to which a row of its teeth is attached, by means of sinew derived from the same animal. The skin is dyed with ruddle. Victoria.

2, 3. Necklets made of a strand of opossum fur string, to which are attached as pendants a series of short strands of the same material. 2, Arunta tribe, Central Australia. 3, Warramunga tribe, Central Australia.

4. A waist belt of Euro (*Macropus robustus*) fur string. Arunta tribe, Central Australia.

5. An apron worn by women during corroboree dances. Wimmera district, Victoria.

6-9. Necklets made of strands of well-greased and red ochred opossum fur string. 6-8, Arunta and Warramunga tribes, Central Australia. 9, Macarthur River, Northern Territory.

10. A small pubic tassel worn by the men of the Arunta tribe, Central Australia. (Presented by Professor Spencer.)

11. Necklace made of the seeds of the bean tree (*Erythrina vespertina*), worn by women of the Arunta and other Central Australian tribes.

12-17. Shell necklaces. 12, Victoria. 13, 14, 15, Worn by Tasmanian women. 16, 17, Worn by women; Victoria. 17, Dentalium shells; north-west coast.

18-20. Reed necklaces. 18, Worn by women; Townsville, Queensland. It is 30 feet in length, and there are 478 pieces of reed. This was worn by both men and women. Native name at Lake Hindmarsh, Jal-kul; on the Yarra, Koolkoort or Tarrygoorn. The reed is called Djerrik. 20, Victoria.

21. Necklace made of small sections cut out of the claws of a crayfish. Warrumbool, Victoria.

22. Necklace made of the seeds of the quandong tree. Mallee district, Victoria.

23-28. Necklaces made of reeds. 23, Lower Murray River. 24, 25, Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen). 26, 27, 28, Central Australia.

29, 30. Necklaces made from the backbone of a snake. Queensland. (Presented by Mr. F. Wedge.)

31. Two ornaments worn on the head, made from ground-down pieces of shell strung on to thread. Mackay, Queensland.

32, 33. Small bunches of owl feathers, worn on the head.

32. Minung tribe, King George's Sound, Western Australia.

33. Arunta tribe, Central Australia.

34. Small bunch of the same. This was worn on the head of a boy who was passing through the initiation ceremony. Arunta tribe, Central Australia.

35. Bunch of cockatoo feathers, worn as a head ornament. Cairns, Queensland.

36. Bunch of emu feathers, blackened with charcoal and grease; worn as an ornament. Arunta tribe, Central Australia.

37. Bunch of yellow and white cockatoo feathers, tied on to a bone, and worn as a head ornament. Eaw tribe, Northampton, Western Australia. Native name, Jinkarra.

38. Bunch of emu feathers, attached to a bone, and worn on the head. Eaw tribe, Northampton, Western Australia.

39, 40. Bunches of cockatoo feathers, similar to No. 37.

40. Macarthur River, Northern Territory.

41. Bunch of red ochred emu feathers, worn as an ornament during corroborees. Mindaru tribe, Western Australia.

42. Feathers from the tail of the black cockatoo, worn as ornaments. Arunta tribe, Central Australia.

43, 44. Red and white cockatoo feather ornaments. Arunta tribe, Central Australia.

45. Large bunch of emu feathers, blackened with charcoal and grease; worn during the performance of ceremonies by men of the Arunta tribe, Central Australia. (Fig. 175.)

46, 47. Feathers of an owl, red ochred, and worn as a head ornament, Arunta tribe, Central Australia.

48. Bunch of emu feathers, attached together by a mass of resin derived from a grass tree. Cooper's Creek, Central Australia.

49. Bunch of emu feathers, worn as an ornament in a band of fur string, which encircles the upper arm. Eaw tribe, Northampton, Western Australia.

50, 51. Two bunches of emu feathers used for decoration during the performance of ceremonies; when not in use they are carried about tied up tightly with string. Arunta tribe, Central Australia. (Fig. 170.)

52-58. Specimens of a head-dress worn by the men in the Arunta, Luritja, and Ilpirra tribes in Central Australia. It is made by intertwining emu feathers until they form a mass which closely resembles the pad forming the sole of the

shoes worn by the Kurdaitcha. It is tied round the back of the head by means of fur string. Native name in the Arunta tribe, Inampa. (54, 55 presented by Professor Spencer.)

59. Girdle of bandicoot fur string, worn by men. Arunta tribe, Central Australia.

60. Waist girdle of human hair string, worn by men. Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen.)

61. Waistband of network, worn by men. It is made out of string manufactured from a reed that grows on the banks of the Murray, and measures some six feet in length. Native name on the Lower Murray, Ni-yeerd.

62, 63, 63A. Bark belts worn by men of the most northern part of the continent. (Presented by Professor Spencer.)

64. Human hair waist girdle. Warramunga tribe, Central Australia.

65. Opossum fur string waist girdle. Arunta tribe, Central Australia.

66, 67. Two head-bands worn by men of the Arunta tribe, Central Australia. Each is made of a number of strands of fur string, which are plastered down with pipeclay so as to form a flat band, the two ends of which are tied behind the occiput. These bands are ornamented in various ways; sometimes, as in the case of No. 67, with bird's down, and are usually decorated when used during the performance of a corroboree. Native name in the Arunta tribe, Chilara. (Fig. 139.) (Presented by Professor Spencer.)

68. Forehead of network, to which kangaroo teeth are attached as pendants, called L'angerra. The string is made of the fibre of some aquatic plant, and the teeth are fastened on with the tail skew of the kangaroo, called Wirrang-gi. The band, which measures nearly 12 inches in length and 3 inches in width, was worn by both men and women. Native name on the Lower Murray, Mulong-gyird.

69. A forehead-band made of closely-woven strands manufactured from the root fibres of the wild elephants. These bands are usually made by the women, but are worn by men only. The length of the band is 12 inches, and the width $1\frac{1}{2}$ inches. As an additional ornament, wing feathers of a cockatoo are stuck in the band, one on each side. Native name on the Lower Murray, Mar-rung-ool.

70. Same as 66 and 67.

71. Forehead-band of network, worn by the natives of Gippsland. It is made of fibre obtained from a small shrub which grows near Lake Tyers, and is coloured with red ochre; 2 feet 3 inches, length, 3 inches, width. Native name, Jimbiren.

72, 73. Same as 66 and 67.

74. Waist ornament made of tail-tips of the rabbit-kangaroo (*Peragale lagotis*) attached to a strand of string. Eaw tribe, Northampton, West Australia.

75-77. Ornaments made of the tail-tips of rabbit-kangaroo. 75. Minung tribe, King George's Sound, West Australia. 76, 77. Arunta tribe, Central Australia.

78. Waist ornament of strands of string, to which are attached bunches of cockatoo feathers. Central Australia.

79. Waist ornament of tail-tips of rabbit-kangaroo. Worn by women of the Arunta tribe, Central Australia, while performing a special dance on the ground where the ceremony of initiating a youth is about to be performed.

80, 81. Ornaments of the tail-tips of the rabbit-kangaroo. 80. Ngurla tribe, Roeburn, West Australia. 81. Arunta tribe, Central Australia. (Presented by Professor Spencer.)

82. Head ornament of egret plumes mounted in a small mass of beeswax. Kakadu tribe, E. Alligator River, Northern Territory. (Presented by Professor Spencer.)

83. Ornament consisting of a bunch of split black-coloured goose and white cockatoo feathers mounted on a handle made of stalks wound round with string coated over with beeswax. Kakadu tribe, E. Alligator River, Northern Territory. (Presented by Mr. P. Cahill.)

84. Ornament consisting of a bunch of split native companion feathers mounted on a handle of stalks wound round with string made from banyan-bark. The coil of string is worn over the head, the tuft hanging down the middle of the back. Kakadu tribe, E. Alligator River. (Presented by Mr. P. Cahill.)

85. Head ornament consisting of a bunch of owl feathers attached to a stick by means of tendon. Port George IV., North-West Australia.

CLOTHING AND ORNAMENT. (Case 13.)

1. Man's dress of strips of pelican skin attached to a cord of human hair string. Lake Callabonna, South Australia.

2. Man's dress of rabbit tails. Lake Frome, South Australia.

3-10. Woman's dress or apron of red ochred fur string. 3, 4, 5, 7, 10. Macarthur River, Northern Territory. 6, 8, 9. Barrow Creek, Central Australia. (3-10 presented by Professor Spencer and Mr. F. J. Gillen.)

11-22. Tassels of fur string. 11-15. Macarthur River, Northern Territory. 16, 21, 22. Arunta tribe, Central Australia. 17-20. Barrow Creek, Central Australia. (Nos. 11-22 presented by Professor Spencer and Mr. F. J. Gillen.)

23. Ornament of pearl shell and own feathers. Central Australia.

24. Notted string girdle. Gindimil tribe, Macarthur River, Northern Territory.

25-28. Girdles of human hair string. Central Australia.

29. Fur-string girdle. Arunta, Central Australia.

30. Fur-string girdle. Warraungga, Central Australia.

31-35. Waist girdles of vegetable fibre string. All but 31 red ochre-d. 31. Barrow Creek, Central Australia. 32-35. Macarthur River, Northern Territory.

(Nos. 24-35 presented by Professor Spencer and Mr. F. J. Gillen.)

36. Waist belt of Blue mountain parakeet feathers. Darwin. (Presented by Mrs. J. C. Lewis.)

37. Waist ornament of parrot feathers. Mara tribe, Macarthur River, Northern Territory.

38. Head or neck band of string, with the bill of a spoon-bill attached. Macarthur River, Northern Territory.

39-41. Necklets of string, and rings of wild beeswax. Macarthur River, Northern Territory.

42-47. Feather necklets. Mara tribe, Macarthur River, Northern Territory. 42, 43. Arc of parrot feathers. 44-47. Of feathers of the galah or rose-breasted cockatoo.

48-50. Necklets of kangaroo teeth attached to string with wild beeswax. Macarthur River, Northern Territory. (Nos. 37-50 presented by Professor Spencer and Mr. F. J. Gillen.)

51, 58. String necklets. 58. Macarthur River, Northern Territory.

59-62. Neckbands of fur cords. Macarthur River, Northern Territory. 61, 62 have pendants made from the hair of rabbit bandicoot tail-tips; and 61 has as well an ornament of kangaroo teeth set in beeswax. (Nos. 58-62 presented by Professor Spencer and Mr. F. J. Gillen.)

63-65. Tassels of fur strings attached to headbands. Macarthur River, Northern Territory.

66. Ornament of pearl shell attached to a string head-band; worn by men. Northern Territory. (Nos. 61-67 presented by Professor Spencer and Mr. F. J. Gillen.)

67-69. String chest bands. Northern Territory.

70-72. String necklets. 71. Northern Territory. 70, 72. Macarthur River, Northern Territory.

73. Head ornament of kangaroo teeth set in wild beeswax. Northern Territory.

74, 75. Head ornaments of circles of woven cane rings; worn by men. Northern Territory.

76. Feather ornament, worn by men, hanging down the back of the head. Alligator River, Northern Territory.

77-84. Plain and ornamented head-bands. 77, 78, 80, 82. Arunta tribe, Central Australia. 79, 83, 84. Macarthur River, Northern Territory.

85-91. Forehead-bands of fur string plastered with clay and ornamented. Arunta tribe, Central Australia.

92. Forehead-band (Chilara) of fur string. Arunta tribe, Central Australia.

93-96. Forehead-bands of woven string decorated with pigments. Macarthur River, Northern Territory.

97. Ornament of fur cords terminated with tufts of feathers. Tennant Creek, Central Australia.

98. Head ornament of native goose feathers. Macarthur River, Northern Territory.

99-103. Armlets of split rattan bound with string. Macarthur River, Northern Territory. (Nos. 74-103 presented by Professor Spencer and Mr. F. J. Gillen.)

104-108. Armlets of plaited rattan. 103, 105. Macarthur River. 106, 107, 108. Alligator River, Northern Territory. (Presented by Professor Spencer.)

109-111. Armlets of rattan woven together with string. Northern Territory.

112. Beard ornament of a piece of Nautilus shell. North Queensland.

113. Corroboree ornament of a piece of Nautilus shell. North Queensland.

114. Bark sandal, for walking on sand when it is hot. West Kimberley, West Australia. (Presented by Mr. G. A. Kearnland.)

115. Necklet of kangaroo and human teeth. From between Ord and Nigri Rivers, Kimberley district, West Australia.

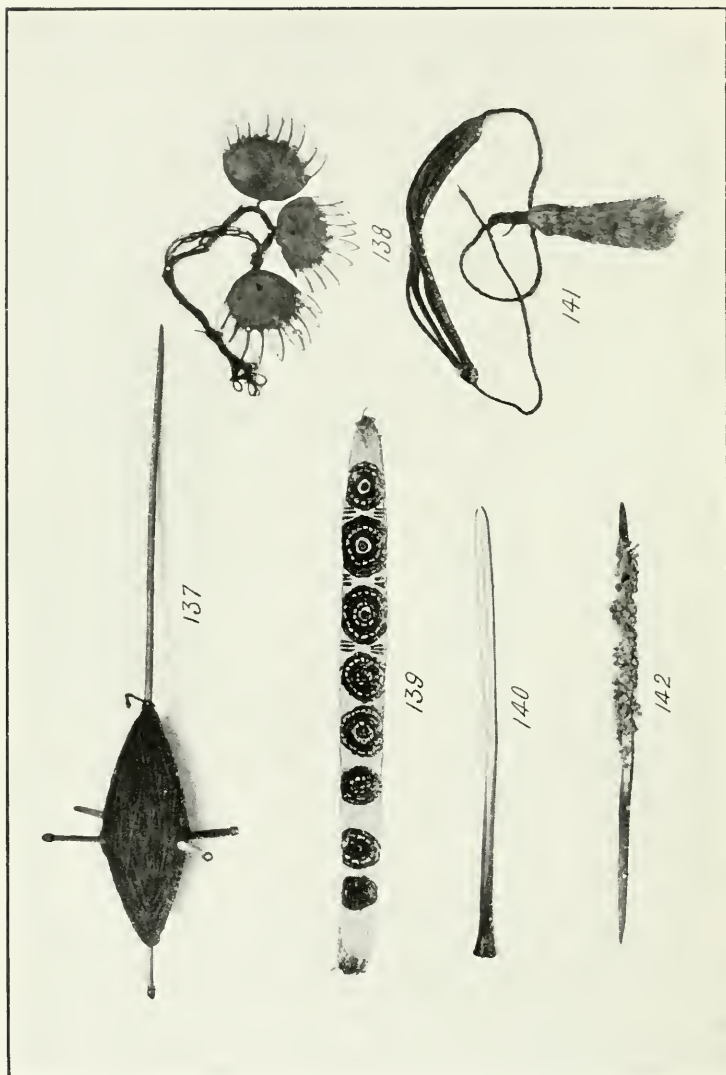
116. Necklet of kangaroo, horse, and human teeth, and fish-tail bones. From between Ord and Nigri Rivers, Kimberley district, West Australia.

117. Necklet of humps of poreupine-grass resin (*Triodia* sp.) Tennant Creek, Central Australia.

118. Tassel of vegetable-fibre string. Tennant Creek. Central Australia.

119. Necklet of fur string. North-West Australia.

120. Pad of emu feathers ornamented with two tufts of bird's down, worn as a chignon on the back of the head by Arunta and Luritja men. Central Australia. (Presented by Professor Spencer.)



ORNAMENTS, SPINDLE.

PERSONAL ORNAMENTS. (Case 14.)

This series consists of ornaments worn by natives of various Central Australian tribes.

1, 2, 3, 4, 5, 6. Flattened masses of resin derived from the porcupine grass (*Tricodan* spp.), with rows of the lower front teeth of the kangaroo inserted along one edge. The surface, as in No. 5, may be ornamented with cross lines and, as in No. 3, two or three may be fastened together by strands of human hair string, by means also of which the ornament is tied on to the head of a woman so that it hangs down over her forehead. Worn by women of the Kaikash, Warramunga, and other Northern Central Australian tribes. No. 3 from the Kakadu tribe, Alligator River. (Presented by Professor Spencer.) (Fig. 138.)

7. A strand of human hair string with a small mass of porcupine-grass resin at each end to which is attached a pair of eaglehawk claws. Warramunga tribe, Central Australia.

8. A head ornament, consisting of a strand of human hair string, to which are attached by means of resin the lower jaws and leg-bones of some small marsupial, such as a tiger cat, as well as the front teeth of a kangaroo. Worn by women of the Niiura tribe, Central Australia. This ornament is closely similar to one of the large number of pendants which altogether form the mourning chaplet worn on the head of women during the performance of the final ceremony at the grave of a dead relative.

9. A neck-band made of six strands of well-greased and red ochred fur or human hair string. The two ends, which are tied together, are decorated with the lower jaws and leg-bones of a small marsupial and with the tail-tips of the rabbit-kangaroo (*Peripule lagotis*), all of which are fastened on with porcupine-grass resin. Arunta tribe, Central Australia.

10-18. Neck-bands, very similar in structure to No. 9, but without bone ornaments. No. 10 has the tail-tip of a rabbit-kangaroo; and Nos. 11 and 12 the tail tip of a dingo. Arunta tribe. Native name, Okincha-lamina. (Fig. 141.)

19, 20. A special strand of fur string which is worn so that the ends, each of which is ornamented with the tailtip of the rabbit-kangaroo, hang down the back of the man who has passed through the series of ceremonies which constitute in the Arunta and other Central Australian tribes the final initiation ceremony, and to which the name Engwura is given. Native name, Wupira.

21. Ornament, called Leda, worn by a young boy when first he takes part in initiation ceremonies. Made of banyan bark

string, worn round the neck with a pendant down the middle of the back. The terminal piece of wood is supposed to represent his knee and to aid in strengthening this. Iwaidji tribe, Northern Territory. (Presented by Professor Spencer.)

22. Feather ornaments made to represent flowers. Worn on the heads of women. Kakadu tribe, Northern Territory. (Presented by Professor Spencer.)

23. Head ornament made out of the head of a Blue-mountain parakeet, with attached knob of beeswax. Kakadu tribe, Northern Territory. (Presented by Professor Spencer.)

24. Woman's head ornament of kangaroo teeth embedded in beeswax. Daly River, Northern Territory. (Presented by Mr. R. D. Boys.)

PERSONAL ORNAMENTS. (Case 15.)

This series illustrates various forms of ornaments made out of bone, wood, and shell.

1, 2. Kangaroo leg-bones (*fibula*), pointed at one end. Western Australia. Native name, Yauarda or Munbarra. (Fig. 140.)

3. A piece of bone from which sections are cut off for insertion into the nasal septum. Lower Murray. Native name, Kolko.

4. Piece of reed inserted into the hole bored in the nasal septum. After the hole has been pierced by the bone awl used for this purpose, a piece of reed is slipped over the point into the hole, and the awl then withdrawn through the reed, which is left behind to prevent the hole from closing up. The size of the reed is gradually increased to admit of the insertion of the nose bone.

5. Short nose bone, worn by natives on the Murray River. Native name, Mili-mili-u.

6, 7, 8, 9. Four nose bones ornamented with incised lines. Victoria. Native name, Nautekaua.

10. Wooden nose stick ornamented with incised lines. Eaw tribe, Northampton, West Australia.

11, 12, 13, 14. A series of nose bones made out of the hollow bone (*radius*) of a bird's wing. One end is tipped with porcupine-grass resin, and the other has the tail-tip of the rabbit-kangaroo inserted into it. Arunta tribe, Central Australia. Native name, Lalkira.

15, 16, 17. Three nose bones made by splitting a hollow bone and then grinding down the rough edges. Two of them are ornamented with bands of incised lines. Arunta tribe, Central Australia. Native name, Lalkira.

18. Three wooden spindle-shaped ornaments worn in the hair. Whajuk tribe, West Australia.

19, 20, 21. Three ornaments made out of the shell of *Melospira margaritifera* by northern tribes, and traded south across the central part of the continent. They are worn as ornaments by men, suspended either from the neck or waist. Each is attached to a strand of human hair string by a small mass of porcupine-grass resin. They are also used for magic purposes in connexion with the charming of women. Arunta tribe, Central Australia. Native name, Lonka-lonka.

22, 23. Two small and one large shell ornament, with the zig-zag pattern characteristic of Western Australian objects. No. 23 from Roeburn, Western Australia. Native name, Bodan.

24. Two shell ornaments from Queensland; worn attached to twine suspended from the neck. Native name, Karri-la.

25. Small slab of wood made of *Acacia acuminata*, used for decorating the hair. Majunta tribe, Western Australia.

26, 27. Rounded sticks made of Jarrah, and used as head ornaments. Eaw tribe, Northampton, Western Australia.

28, 29. Two curiously-flaked sticks used by certain of the South, Central, and North West Australian tribes. A piece of wood is taken, and then by means of a sharp-edged flake of quartzite, which is often enclosed in the mass of resin on the handle of a spear thrower, a series of shavings are flaked off, but in such a way that they are not completely separated off from the central stick. They are so thin that each one curls round and, as they are made along a close-set spiral line, the general appearance of a plume is produced. In some tribes they are merely worn by the men as head ornaments, just as feather plumes are, but in others, as, for example, the northern Arunta living in the Macdonnell Ranges, they are worn during serious fights when it is intended to kill men. The members of an avenging party, after killing their victim, will tear these flaked sticks, which they always wear on such an occasion, out of their hair, break them in pieces, and throw them on to the body of the dead man, after which they are tabu and must not be touched by any one. Arunta tribe, Central Australia. (Presented by Professor Spencer.) (Fig. 112.)

30. Head ornament of white feathers tied to the end of a twig. Barrow Creek. (Presented by Professor Spencer.)

31. Two head ornaments of rings of red-coloured feathers tied to sticks. Tomant Creek. (Presented by Professor Spencer.)

32. Head ornament of stick tipped with ten feathers of the "Native Companion."

HUMAN HAIR STRING. (Case 16.)

The customs with regard to human hair differ much in various tribes. In some it is believed that the possession of even a minute fragment of the hair of any individual gives to its possessor the power to work evil upon the man from whom it has been cut; and, therefore, amongst such tribes all fragments of hair are most carefully destroyed, lest they should fall into the hands of an enemy. In others there is no such belief, and human hair is much prized for the purpose of making string, which is woven into girdles, &c. This series shows the various stages in the manufacture.

1. Hair in its natural state.

2-5. Strands of hair string ready to be made up into girdles. Arunta and other Central Australian tribes.

6, 7. Strands of very fine hair string. Queensland.

8. Hair string girdle worn round the waist by men of the Arunta, Ilpirra, Warramunga, and other Central Australian tribes. The hair of which these girdles are principally made must be given by a woman to her son-in-law.

9. Hair string girdle made of a mixture of human hair and opossum fur string. Arunta tribe, Central Australia.

10. A ball of human hair string, such as is used in the making of various sacred ceremonial objects, or for tying on the head-dress worn during the performance of many corroborees. Arunta tribe, Central Australia.

11. Spindle used to manufacture hair string. Eaw tribe, Northampton, West Australia. (Fig. 137.) The illustration represents a man of the Arunta tribe using the spindle.

12. Spindle used to manufacture hair string. Kakadu tribe, Northern Territory. Native name, Kopeida. (Presented by Professor Spenceer.)

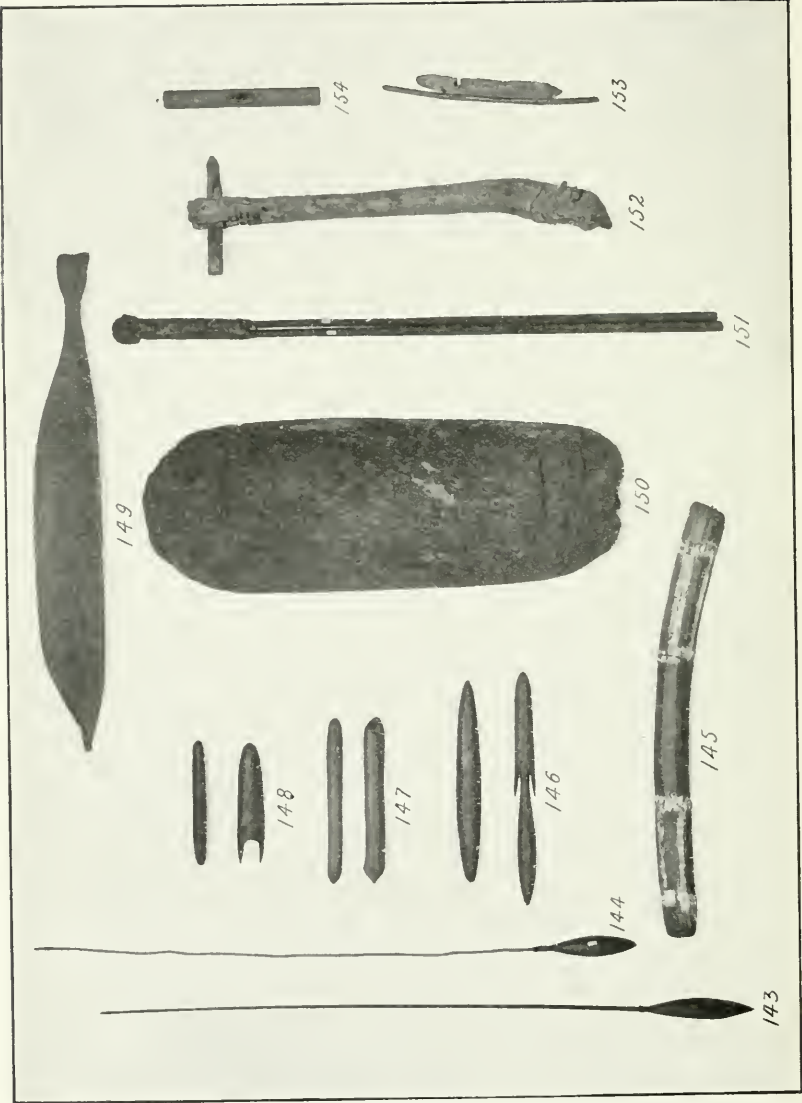
13. Spindle used to manufacture hair string. Arunta tribe, Tempe Downs, Macdonnell Range, Northern Territory.

MANUFACTURE OF TWINE. (Case 17.)

In the manufacture of twine (apart from that which is made from human hair) three materials are used—(1) vegetable fibre, (2) sinew, (3) fur of various animals. The twine thus made is often closely similar to, and quite as strong as, much of that which is made by white men. The string or twine consists usually of two twisted strands plied together, there seldom being more than two plies, whereas in the ordinary string manufactured by white men there is seldom less than three plies. An inspection of the nets, &c., made out of native twine will show how closely similar this is to the European material.

1. Girdle of string made of vegetable fibre. Queensland.

PLATE 14.



FIRE MAKING, MUSICAL INSTRUMENTS, PLAYTHINGS.

2. Fibrous root of wild Clematis, called *Mowee*, of which the Macgreggor or hand hand wire by them is sometimes made on the Lower Murray River. (See larger specimen and clothing case.)

3. Vegetable fibre used for making wire by the Arunta tribe, Central Australia.

4. Tip of the tail of a Euro (*Macropus volans*) with skin attached to it. This skin is much used for the mending of broken wooden implements, such as cossoes, bockle, &c., and to tie the barbed point on to the spear-head. It is carefully drawn out from the tail and legs of a kangaroo and from the legs of an emu before making the article. Arunta tribe, Central Australia.

5. Skin from kangaroo tail. Lower Murray River. Native name, *Wiri-ran-mu*.

6. Bark made from opossum fur string. Arunta tribe, Central Australia.

7. Girdle made of bandicoot fur string. Arunta tribe, Central Australia.

8, 9, 10. Balls of string ready for use, made out of opossum fur string. Central and Western Australia.

11. Spindle for twisting the fur into string. When in use (see photo in basket hair case) the implement is made to rotate by moving the left hand up and down the thigh, so as to turn round the long handle of the spindle, while at the same time the string, as it is formed, is continually served with fresh material, which is held in the right hand. Karriagar tribe, Boulbore, Western Australia. Native name, *Tulgo*.

12. Spindle for making fur string. Native name, *Kikenna*. Warranunga tribe, Concord Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

FIRE MAKING. (Case 18.)

This series illustrates some of the various methods employed by Australian natives for producing fire. The essential feature of all of them consists in the rubbing of a harder upon a softer wood. In some cases the action may be that of a drill, and in others that of a backwards and forwards pulsing or sawing motion.

1, 2, 3. Softwood shields and hardwood spear-thrower. These are the instruments usually employed by the Arunta and other Central Australian tribes. Two natives (as shown in the illustration) sit down opposite to one another, placing their feet upon the shield so as to prevent it from moving. Then with considerable rapidity they rub the edge of the spear-thrower backwards and forwards upon it, with the result that a groove is soon made in the soft shield, and the heat

produced by the friction is so great that the powdered wood in the groove begins to glow and take fire. A considerable number of the shields carried by the natives show a series of charred grooves similar to those in the specimens, indicating that they have been used for the purpose of fire making. (Figs. 149, 150.)

4-11. These illustrate the production of fire by means of a drilling motion. In each case there is a piece of soft wood which is placed on the ground and held in position by the feet, while a longer piece of wood is twisted rapidly round and round upon it by the hands. (Figs. 153, 154.) 4. Belonging to the Woe-wurong tribe, Victoria. 5, 6, 7, 8. Queensland. 9. Northern Territory. 10. North-West Australia. 11. Northern Territory. (Presented by Professor Spencer.)

12, 13, 14. Sticks for drilling, with their pointed ends enclosed in a sheath of grass-tree resin ornamented with beads. Used by the natives of Northern Queensland and the Torres Strait Islands. (Fig. 151.)

15, 16. These represent the fixed pieces over which another piece is rubbed. A small branch is taken, one end is split, and a wedge inserted so as to keep the two halves apart; then a little mat of dried grass or material suitable for tinder is placed in the split, and over this a piece of hard wood is rapidly rubbed, backwards and forwards, with the result that heated sparks fly off and set fire to the tinder. (Fig. 152.) 15. Queensland. (Presented by Mr. A. W. Howitt.) 16. Head of Thomson River, Northern Queensland. (Presented by Mr. Robt. Christison.)

BONE NEEDLES, AWLS, FISHING HOOKS, Etc. (Case 19.)

For the purpose of manufacturing certain articles, such as clothing, fishing nets, &c., the natives utilize as tools materials ready to hand in the form of wood and bone, and even the naturally sharpened strong spines of the *Echidna*. Out of bone or wood sharpened at the point they make awls and needles, and from bone they carve out fish hooks. In no case do they ever appear to have used any form of metal, that is, in their natural state, for since the advent of the white man the native has readily made use of any odd scraps of iron which he could obtain, perceiving the superiority of this to his own bone and wooden implements. The specimens in this case illustrate the simple but, at the same time, often effective nature of their tools.

1. Mesh stick of Myal wood (*Acacia homalophylla*), used for the making of fishing nets.

2. Mesh stick of Jarrah (*Eucalyptus marginata*), ornamented with zig-zag lines. Ngurla tribe, Roebourne, West Australia.

3. A small slab of wood decorated with red and white, and with a piece of native string attached to it; stated to have been used as a float for fishing. The material most generally used for this purpose was bark. Victoria.

4. Stones, attached as sinkers to a fishing net. Queensland.

5. Fish hook cut out of *Haliotis* shell. The line is made of vegetable fibre. Rockingham Bay, Queensland.

6. Fish hook made out of bone. The line is made of the fibre-bark of the "lightwood." Lake Tyers, Gippsland.

7. Fish hook made of shell, with short sinew string. Port Lincoln, South Australia.

8. Fish hook made of bone. Daly River, Northern Territory.

9, 10, 11, 12, 13. Five fish hooks in which the shaft is made of bone or wood and the point of bone. The two are fastened together by string, which is covered with a lump of resin. Daly River, Northern Territory.

14. Awl made out of the thigh-bone of the emu. Used for sewing rugs, and also for piercing the nasal septum. Called Pinki on the Lower Murray River.

15. Two bone needles. Northern Queensland.

16. Five bone awls. Sand hummocks between Tower Hill and Port Fairy. (Presented by Mr. A. S. Kenyon.)

17. Bundle of wooden pegs, the sharp points of which have been hardened by fire; used as awls. Queensland.

18. A small, neatly-made bone needle with an eye, to which a piece of native string is attached. Victoria.

19. A bundle of sharply-pointed bone awls, called Mindermim. Wae-wurong tribe, Victoria.

20. Bone awl. Barrow Creek, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

21, 22. Sharp spines of the *Echidna*. Two of them have been extracted along with a small part of the thick skin, which forms a head to the implement. The spines are used as lancets for bleeding the sick, and for extracting thorns, &c. Victoria.

23. Two bone awls, called Mindermim. Taken from a sand dune near shell mounds at Cape Patterson, Victoria.

24, 25. Bone awls, from sand dunes, Cape Orway, Victoria.

26. Six bone implements pointed at both ends; said to be used for catching fish. Sand hummocks between Tower Hill and Port Fairy. (Presented by Mr. A. S. Kenyon.)

27. Bone awl or fish hook, with longitudinal groove on one side. Near Shelford, Victoria.

28. A somewhat elaborate wooden awl ornamented at the handle, and with a small spherical mass of human hair string wound round the middle of its length. Queensland.

29. Two wooden awls, used as needles for sewing skins together. Queensland.

30. Four split bones, used as gouges. Warramunga and Kait'sh tribes, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

31. Lower jaw of an opossum, the front tooth of which is used for incising patterns on wood and stone, and also for drilling holes through the same. Arunta tribe, Central Australia.

32. Nine bone implements from sand dunes between Tower Hill and Port Fairy. (Presented by Mr. A. S. Kenyon.)

33. Bone awls, found on sand dune, Wilson's Promontory, Victoria. (Presented by Mr. J. A. Kershaw.)

INSTRUMENTS USED FOR CUTTING AND SCRAPING. (Case 20.)

The material most frequently used for cutting purposes is stone of various kinds, but, for both cutting and scraping, the sharp edge of shells and teeth, and more rarely a chipped or ground bone is also used. Most often the cutting edge is mounted in some resinous material, and is thus attached to a handle, the gum or resin used being derived from grass trees (*Xanthorrhoea*), from the Porcupine grass (*Triodia*) or from the Ironwood Tree (*Erythrophloeum* sp.) After coming into contact with the whites, the natives usually substitute for stone, chips of glass or of porcelain insulators from telegraph poles, or small flat pieces of iron ground down to a sharp edge.

1, 2. A combined cutting instrument and spear thrower. This is very frequently met with in the central and western areas of the continent, and is the most important cutting instrument by which spears, shields, and all wooden implements are made. No. 1 is from Arunta tribe, Central Australia; native name, Amera. No. 2 is from Western Australia; native name, Miro.

3. Most probably this was originally a combined cutting instrument and spear thrower, but has had the point for insertion into the spear broken off, and may then, possibly, have been used as a club as well as a cutting instrument. Ngurla tribe, Roeburn, Western Australia.

4, 5, 7, 8. Cutting and scraping instruments, the cutting surface being formed by a series of flakes of flint (replaced by glass in 7 and 8). The resin is made from the grass tree. The native name of the instrument is Dabler or Dabla. All are from West Australia. (Fig. 159.)

9. Cutting instrument, with a single flake of quartz attached by grass-tree resin to the end of a short piece of wood. This resembles in shape a small adze. West Australia.

10. A form of stone knife, the blade consisting of quartzite which has been chipped so as to form a serrated cutting edge. The stone is fixed to the stick, which serves as a handle, by grass-tree resin and twine. From north of the Murray River, New South Wales.

11. A tool called Lian-gualert, with which the natives used to ornament their wooden weapons, such as shields. It consists of the lower jaw of an opossum fastened to a stick by twine and resin. The twine is made from the fibrous bark of *Eucalyptus nitida*. The incisor tooth acts as a small gouge. Woor-wurong tribe, Victoria. (Fig. 163.)

12. The lower jaw of an opossum, the incisor tooth of which is used as a cutting instrument for marking designs on stone and wooden Chirigga. Arunta tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

13. Shell of the fresh-water mussel, used as scrapers. Victoria.

14. Shell used as a scraper or knife. Native name, Kankeri. Northern Queensland.

15. Shell scraper. Port Lincoln, South Australia.

16. Cutting instrument consisting of a small flint flake set in the side of a handle made of porcupine-grass resin. Native name, Erling. Kurnjineba tribe, North-West Australia.

17. Portion of the shoulder blade, probably of a large kangaroo. The fractured margin has been scraped down to a sharp cutting edge. The instrument is used for cutting yams. The latter are first cooked on hot stones in water, after which they are cut up and soaked again before being eaten. Roper River, Northern Territory. (Presented by Professor Spencer.)

FOODS, DECORATING MATERIALS, NARCOTICS, FIXATIVES, Etc. (Case 21.)

(FOODS.)

It is impossible to exhibit, except in a very insufficient way, specimens of native foods, for the reason that everything that is edible is eaten.

Amongst the higher vertebrate animals practically every mammal, bird, reptile, frog, and fish that has enough flesh on it to make it worth eating serves as an article of food in some part of the Continent or another. In most cases the food is cooked either on an open fire, or in a closed oven, made by digging a hole in the ground, heating stones, placing the food covered with grass or leaves on the latter, and then filling in the earth. Amongst invertebrate animals, shell-fish of various forms, mussels, cockles, &c., are eaten in numbers, their dead shells lying in heaps beside the cooking places, forming, on many parts of the sea-coast, shell mounds of great extent. Various forms of insects, such as Bogong moths (*Agrotis suffusa*) and larvæ of moths, beetles, and ants are much relished, and, where obtainable, the honeycomb of wild bees is a favourite diet. Amongst plants the seeds of many species of grass and water lilies, and the sporocarps of *Marsilea quadrifolia*, commonly called Nardoo, are gathered by the women in great quantities, and ground up to form cakes. In parts where they grow, various forms of yams form a staple vegetable diet, as also do the stalks and roots of water lilies.

1. Bean of *Acacia* (*sp.*); used as food. Dieri tribe, Cooper's Creek, Central Australia.

2. Fruit of the Bunya Bunya (*Araucaria Bidwillii*); used as food. Queensland.

3. Manna, made by the lerp insect living on species of Eucalyptus, and used as food. Queensland.

4. Native rice (*Oryza sativa*), "Kineyah." Gulf District, North Queensland. (Presented by Mr. H. Hopkins.)

5. Pieces of "damper" or cake made from native rice (*Oryza sativa*). North Queensland. (Presented by Mr. H. Hopkins.)

5A. Nardu (variously spelt Nardoo, Ardoos, Gnadu, or Gnadunnea) is the name given originally by the Yantruwunta tribe, near Lake Eyre, to the plant *Marsilea quadrifolia*, popularly known as the clover fern. The sporocarps (commonly called seeds) are very numerous, and lie close to the roots. They are first of all cleaned, then pounded on stone, and the resultant "flour" is mixed with water and made into cakes. It was on this Nardu that King, the surviving member of the Burke and Wills Expedition, subsisted mainly until in October, 1861, he was rescued by A. W. Howitt on the banks of Cooper's Creek. During the wet season, the Nardu grows in abundance in shallow pools, its clover-like leaves flecking the surface of the water. The hard

sporocarps ripen after the water dries up, and persist for a long time. From the Old Peake Station, near Lake Eyre. (Presented by Professor Spencer.)

5a. Seeds or Sporocarps of Nardu. These are some of the actual specimens collected by Burke, Wills, and King at Cooper's Creek. They were found by Dr. A. W. Howell, at their camp, in 1861. (Presented by Miss E. B. Howell.)

6. Nardu, the spore cases of *Marsilea quadrifolia*, these are pounded and made into a cake. Dieri tribe, Cooper's Creek, Central Australia.

7. Irriakura, the bulb of *Cyperus rotundus*; used as a food. Arunta and other tribes, Central Australia.

8. Cake made out of seeds of the water lily. Umbain tribe, Central Australia.

9. Ingwitchika or Munyeru, the seed of *Claytonia balmensis* ground up on stone and made into a paste and then cooked; used as food. Arunta and other tribes, Central Australia.

10, 11. Tjainda, a grass seed, and cake made of the same. The seed is ground up, mixed with water, and used for making cakes. Barrow Creek, Central Australia.

12. Itata, a grass seed ground up and used for making cakes. Barrow Creek, Central Australia.

13. Cake made from grass seed in bark receptacle. Barrow Creek, Central Australia.

14. Erlipinna, grass seed used for making cakes. Barrow Creek, Central Australia. (7-14 presented by Professor Spencer and Mr. F. J. Gillen.)

15. Clay, called "Kai-e," baked in ashes and eaten by the natives of the Lower Herbert River, North Queensland. (Presented by Mr. J. Gaggin.)

16. Tiritipana, a grass seed, ground up and used for making cakes. Urabunna tribe.

17. Madlakadui-kati, seed of a plant ground up and used for making cakes. Urabunna tribe.

18. Kudnangertakati, seed of a plant ground up and used for making cakes. Urabunna tribe.

19. Kuraugulla, a grass seed, ground up and used for making cakes. Urabunna tribe.

20. Katnangara, seed of *Claytonia balmensis*, ground up and used for making cakes. Urabunna tribe.

21, 22. Two cakes or "dampers" made from pounded up lily seeds; after being baked they are carried about in roughly made "paper-bark" baskets. Alligator River, Northern Territory.

23. Mupingalu, pounded-up white-ant hill; eaten as a cure for colds by the natives of the Kakadu tribe, East Alligator River, Northern Territory. (16-23 presented by Professor Spencer.)

(DECORATING MATERIALS.)

24. Powdered red ochre, a hæmatite, used for decorating the body during the performance of ceremonies. Daly River, Northern Territory.

25. Shell (*Milo diadema*) and yellow ochre used whilst decorating the bodies of performers. Melville Island. (Presented by Professor Spencer.)

26. Mass of white friable stone, which is ground up and used for decorating the bodies of men performing ceremonies. Kakadu tribe, Northern Territory. (Presented by Professor Speneer.)

27. A mass of charcoal mixed with grease, used for decorating the body during the performance of ceremonies. Central Australia.

28. Kaolin, used by the aborigines to paint their bodies, ornaments, implements, &c. Arunta tribe, Central Australia.

29. Wilgi, a pipeclay used by the aborigines of the Whajuk and Ballardong tribes, Western Australia, for decorating their bodies when mixed with grease.

30. Kaolin, used for decorating by the aborigines of the Victoria and Ord Rivers, East Kimberley, Western Australia.

31. Red ochre, used by the aborigines of the Ngurla tribe, Western Australia, for decorating their bodies.

32. Red ochre, taken from a special red ochre pit situated near the River Jay in the Macdonnell Ranges, Central Australia. The pit belongs to a local group of the Arunta tribe, and has been worked for generations past. It is ground up and used extensively for decorating their bodies and implements. (Presented by Professor Spencer.)

33. Red ochre (hæmatite). A lump like this is usually carried about by a man when ceremonies are in progress. It is ground up and used for decorations. Arunta tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

34. Red ochre, wrapped in bark and human hair string. From between the Ord and Nigri Rivers, North-West Australia.

35. Wad (?), a manganese ore, obtained near Henbury in the Macdonnell Ranges, Central Australia, and used for decorating the body. When ground up it has a dark pearl-grey tint. Arunta tribe.

36. A manganese oxide, ground up and mixed with grease; used for decorating the body. Warramunga tribe, Lennart Creek, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

37. Bird's down, mixed with pipeclay, in a bark wrapper. Between the Ord and Nigri Rivers, North-West Australia.

38. Six brushes made from twigs with their ends frayed out; used for decorating the body or ceremonial object during the performance of ceremonies. Native name, Jajin. Kakadu tribe, Northern Territory. (Presented by Professor Spencer.)

39. Cane sticks with the ends frayed out so as to serve as brushes for decorating the bodies of men performing ceremonies. Native name, Tjoinjal. Northern Queensland.

(NARCOTICS.)

40. Pituri, the leaves of *Duboisia Hopwoodii*; chewed and used as a narcotic, and also placed in water holes to stupefy eels. Queensland.

41. Bag of Pituri, the leaves of *Duboisia Hopwoodii*; carried in this way it is traded over long distances in Central Australia. Arunta tribe, Central Australia.

(FIXATIVES.)

42. Resin obtained from the porcupine grass (*Trinolia*, sp.); used for hafting knives, spears, &c. Arunta tribe, Central Australia. The resin is in the form of a sticky colourless secretion on the surface of the grass stalks, more especially at the nodes. The aborigines cut the grass up into short lengths when it is perfectly dry. They then burn it on a piece of bark, blowing away the burnt remnants of the grass.

43. A lump of beeswax used for hafting stone knives and spears and in the making of ornaments, &c. Kakadu and other tribes, Northern Territory. (Presented by Professor Spencer.)

44. A mass of resin called Pidgorong, derived from a grass tree (*Xanthorrhoea* sp.) Western Australia.

45. Portion of root of an Ironwood tree (*Erythrophloeum Lohscheeri*), from which the aborigines secure a resin. The outer surface is scraped off, and underneath this is a thin layer of a dark resinous material which is chipped off and then moulded by heat into a mass. Kakadu name is Kaper; on Melville Island it is called Netima. (Presented by Professor Spencer.)

46. A small mass of resin made as above described (45), and carried about for ready use. Melville Island. (Presented by Professor Spencer.)

MUSICAL INSTRUMENTS. (Case 22.)

1-5. "Drone-tubes," commonly called "Trumpets," made out of the naturally hollowed-out branch of a tree. One end has a ring of resin, and through this the performer sings, the sound of the voice being intensified. 1, 2. Arunta tribe, Central Australia. (Fig. 145.) 3, 4. Macarthur River, Northern Territory. 5. Powell Creek, Northern Territory.

6. "Drone-tube," made out of bamboo. Anula tribe, Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen.)

7-10. "Drone-tubes" from the Kakadu tribe, East Alligator River, Northern Territory. (Presented by Professor Spencer.)

11, 12. Musical instruments, used by certain of the tribes in Central Australia. One part, which has projecting points, is held in the left hand while it is struck by the other. This instrument is used during corroborees to mark time. Arunta tribe, Central Australia. Native name, Trora. Presented by Professor Spencer.) (Figs. 146, 148.)

13. Two sticks which are supposed to represent small frogs, and are used during the performance of a ceremony connected with the frog totem by the members of the Arunta tribe, Central Australia. These specimens are two out of about thirty which were made on one occasion. They were hidden during the daytime in a mound of earth on the ground where the sacred ceremonies were performed. At night-time they were taken out, and then, accompanied by the continuous clunk, clunk of the sticks, the men for two or three hours chanted refrains, the burden of which was some such simple phrase as "The frogs of Imanda are good" or "The frogs came out of the trees." (Fig. 147.) (Presented by Professor Spencer and Mr. F. J. Gillen.)

14. Two sticks, probably used for keeping time during the singing or corroborees. Victoria.

15. A remarkable "Drone-tube" of great size, made from a naturally hollowed-out branch of a tree. It can be heard at a long distance. The instrument is to be regarded as the property of the camp. Bloomfield River, Queensland. (Presented by Mr. Dudley Le Souëf.)

LETTER OR MESSAGE STICKS. (Case 23.)

Mr. Walter E. Roth, in his *Ethnographical Studies among the North-West-Central Queensland Aborigines*, says that the letter or message stick is "usually a piece of wood, gidyea, ti-tree, or any other convenient, coloured perhaps black, red, or yellow, from 2 to 4 or more inches in length,

cut to various shapes, from flat to round, and incised with various marks or patterns; occasionally, if the sender is in a hurry or too lazy to manufacture one, it may consist of some peculiarly marked twig in the rough, a plain piece of wood cut to shape, a small bundle of rags tied round and round with hair string twine, or cotton, &c. It means nothing more than a sort of brand or mark belonging to an individual who, so long as he is able to recognise it again, or others for him, can vary it at will in shape, size, or design; in other words, two which happen to be totally unlike may be accompaniments of the identical message. More than anything else, the stick acts as a sort of guarantee of good faith, to show that there is "no gammon," and may at times act as a safeguard or passport over otherwise hostile country. There is nothing on it in the form of a communication which can actually be read, the substitute or messenger invariably carrying the message by word of mouth. The messenger is in all cases an adult man, never a woman, and a person, such as a brother, &c., whom it is known can be trusted. With regard to the particular shapes and designs of these message sticks, there are traces of similarity even over large areas of country. In the Boulia district they are flattened, generally thinner at the edges than elsewhere, rounded or more or less pointed at the extremities, and incised only with straight lines. These straight lines are either parallel with, at an angle, or across each other, and represent quite arbitrarily anything which the manufacturer chooses, from a mountain or a river to a station homestead. Sometimes the comparatively large size of the head station or chief encampment has been attempted in an extra number of lines or cross-lines. The back of the message stick bears the same or similar design as the front, or else is covered with 'flash' marks to make it look 'pretty fellow'; these marks have no other meaning whatsoever, alleged or implied."

1. Message stick. Wonunda-minning tribe, Esperance Bay, Recherche Arch, Western Australia.

2. Message stick. Oriba-kulba tribe, Hughenden, North Queensland.

3. Message stick. Whajuk and Ballarlong tribes, York District, Western Australia.

4, 5. Message sticks. Sharks' Bay, Western Australia.

6. Message stick. Queensland.

7. Message stick. Oriba-kulba tribe, Hughenden, North Queensland.

8, 9. Message stick. Eaw tribe, Northampton, Western Australia.

10-23. Sticks called Kundle, said to be used in rain-making ceremonies. Womunda-minung tribe, Esperance Bay, Western Australia.

CANOES. (24, 25, 26, 27, 28.)

There are five main types of canoes made by Australian aboriginals, of which three are indigenous and two are derived from outside sources.

The simplest (24) consists of a sheet of bark stripped from a gum tree. The two ends are pointed, and while fresh and more or less pliable the bark is manipulated so as to form a very crude boat, which will float on the water and hold one or two natives. In some cases, perhaps in most, advantage is taken of a natural bend in the trunk of a tree so as to secure the requisite concavity with upturned ends. Boats such as these were used for crossing rivers and for fishing, and were usually propelled by punting with a long stick.

In southern Victoria a second type is met with (25). A sheet of bark of the desired length, usually 10 to 12 or even 15 feet long, is stripped from a gum tree. The rough outer bark is removed, and it is held over a fire until the moisture in it has been heated and the whole sheet rendered pliable. It is then turned inside out, the sides are doubled up and secured in position by cords passing across from one margin to the other so that a trough is formed, which is at first open at both ends. The two ends are then squeezed together in folds like those of a fan, which are tied round securely with fibrous string. Where each rope passes across from side to side a stick is placed to prevent the sides from falling in, and at the same time pliant branches are fastened under the tie-rods, which act as ribs and serve to maintain the shape.

A third and higher type is met with on the northern coasts and in the Gulf of Carpentaria (26). This is made of bark obtained from one or two species of *Eucalyptus*, from which during the wet season it is easily peeled off. In some cases, if a suitable one can be obtained, only a single sheet of bark will be used; but this is not usual. In this particular specimen there are seven pieces. One extends from bow to stern along one side. Two are sewn together to form the other side, and the two sides of the boat thus formed are sewn together along the bow, stern, and keel lines. At each end and on each side a small strip is added to form the bow and stern. Along the bulwarks a

thin branch of mangrove wood is tied to the bark to prevent the sides from collapsing outwards. In most cases either end serves as bow or stern, but in some one end may be modified in form.

The fourth type (27) is only met with on the northern coast line, from Clarence Strait on the N.W. to Hinchinbrook Passage on the N.E. It is an outrigger boat, and, in the north, was apparently introduced by the Malays. On the Queensland coast it has been adopted by the natives through intercourse with the Papuans of Torres Strait Islands.

The fifth type is also an introduced one (28), and, like the fourth, has been derived from the Malays. It is met with on the northern coast line, and is commonly called a "dug-out." In making the boat a suitable tree is cut down, and the trunk carried to the water's edge, where it is fashioned, now-a-days, with an iron tomahawk. This specimen is slightly under 20 feet in length. The height at the bow end is 2 feet, in the centre 15 inches, and at the stern 21 inches. Its central width is 2 ft. 6 in. There is no keel, the bottom being quite round. The paddles are simple flat blades. This specimen was made on Melville Island.

24. Murray River, Victoria.

25. Lake Tyers, Victoria.

26. Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen.)

27. Hinchinbrook Island.

28. Melville Island. (Presented by Professor Spencer.)

WALLETS. (Case 29.)

Two wallets, such as are frequently used by a native for the purpose of carrying odd bits of string, decorative objects, &c., and, not infrequently, a sacred stick or stone, which is thus kept hidden from the women and uninitiated. For the purpose of making an outer covering, the skin of an animal is sometimes used, or, more frequently, as in both of these specimens, thin strips of bark, usually of a tea-tree, are utilized. The larger of the two contains (1) head-bands, (2) knouts, used for frightening women, who are taught to believe that they are endowed with evil magic, and that a blow from them will produce serious results, (3) feathers for decorative purposes, (4) a ball of string made from bandicoot fur, (5) ornaments made out of resin and kangaroo teeth, (6) shell ornament, (7) a neck-band, (8) a nosebone, (9) the wooden handle of a stone knife, and (10) a bone gouge. The smaller one contains (1) feather ornaments, and (2) a small sacred stick or Churinga. Both of them belonged to

men of the Arunta tribe, Central Australia. The plentiful amount of red ochre and grease which is smeared over the different articles is very characteristic of this part of the continent. Arunta tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

STONE IMPLEMENTS. (Cases 30-54.)

A series illustrating various forms of stone implements used by Australian aborigines. The majority of the specimens are from South-Eastern and Central Australia, but there is apparently no essential difference in type throughout Australia. The nature of the implement, whether it be ground, chipped, or flaked, depends primarily on the nature of the stone available in any particular district. There is no such thing in Australia as distinct stages of culture or time periods corresponding to the terms *colithic*, *palæolithic*, and *neolithic*. In one and the same camp and district implements are found which, if discovered in the prehistoric remains of Europe, would be assigned to one or other of these periods. This is really the most striking feature of the stone age in Australia, and it is essential to remember that these various types of implements are all in use, often side by side, at the present day. The various implements may be conveniently divided into two main groups, and these into various sub-groups, as follows* :—

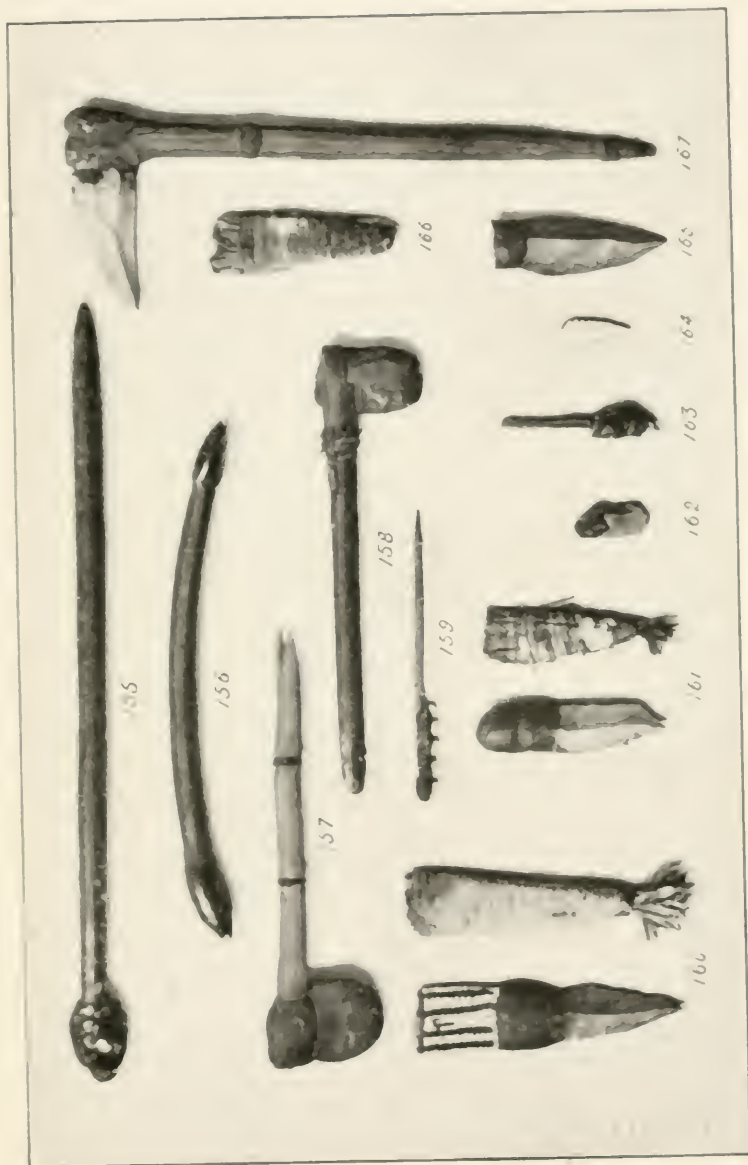
A. CUTTING IMPLEMENTS.

(a) Cutting edge produced by flaking or chipping.

(1) Axes. The simpler ones amongst these are merely pebbles chipped on one side only, and never hafted. (Case 44.) In others both sides are chipped, resembling the *boucher* or *coup de poing* of Europe and Africa. A curious form is seen in the flaked, pick-like axe (Case 31) from Central Australia.

(2) Knives. These vary very much in size and form; some are simply minute flakes with a sharp cutting edge; others (Cases 32, 33, 34, 35) may be of considerable size, and hafted with resin or with resin and wood. Occasionally, after the original flake has been struck off the core, one or more of the cutting edges are secondarily chipped (44, 46, Case 32). A characteristic, but rare form (17-29,

The classification follows closely that proposed by Messrs. Kenyon and Stirling (*Proc. R.S. Victoria*, Pt. 2, vol. xiii.) and dealt with by Messrs. Kenyon and Mahony in the guide to the classified collection arranged by them in the Museum for the meeting of the British Association in 1914. The Museum is especially indebted to Mr. A. S. Kenyon for invaluable assistance, not only in the arrangement, but also in the securing of material. Many thousands of specimens collected and presented by Mr. Kenyon are in the reserve collection.



STONE IMPLEMENTS.

Case 32) is found amongst the Warramunga and Kaitish tribes in Central Australia. These have a peculiar rounded end, with the margin marked completely with secondary chippings. They are used exclusively by women. A special form of knife, or more correctly, saw, is made by inserting in resin on a stick a series of small flakes, one behind the other. (4, 5, 6, Case 20.)

(3) Adzes or gouges. These (Case 30) consist of flakes inserted in resin at one or both ends of a stick, which may be either straight or curved or, in certain Central Australian tribes such as the Arunta, they may be inserted also in the lump of resin that forms the handle end of a spear thrower. The flake may be diminutive in size with a sharp point (13) or very broad, and often has the bulb of percussion on one side and the other worked with secondary chippings. It is by means of this implement that the grooved markings so characteristic of many Australian wooden weapons are produced.

(4) Scrapers. This is a rather vague term applied to a large series of implements, the characteristic feature of which is that one side of the stone has a simple plane surface; the other is marked with flaking and chipping. They thus approximate in certain respects to many of the implements called knives, and were doubtless used both for cutting and scraping, as occasion required. Some of them have a decidedly concave working edge suitable for rounding off a spear shaft.

(5) Spear heads. (Cases 32 and 36.) There are two varieties of these—(a) flaked or flaked and chipped, and (b) flaked and serrated. The former are fundamentally similar to the flaked knives, and the same stone may be used either as a knife or as a spear head. The latter are the most highly worked stone implements made by the Australian aboriginal, and are only manufactured in the north-western part of the continent, where suitable material, such as opalescent quartzite, is obtainable. During recent years the native has utilized glass bottles and porcelain telegraph insulators for the purpose. (Case 32.)

(b) Cutting edge produced by grinding and polishing.

(1) Axes. (Cases 41, 42, 43, 44, 45, 46, 47.) There is immense variation in the form of these. So far as their manufacture is concerned they may be

divided into two main series: (*a*) those made from suitably shaped pebbles, the edge of which is ground and polished (Cases 43, 44), and (*b*) those made from blocks of stone cut from solid masses. In the manufacture of these the block is first of all roughly trimmed by flaking to the desired shape and size (Case 39, 1, 2); then it is hammered until the main inequalities of the surface are to a greater or less extent removed, and finally it is ground on a flat grinding stone with the aid of water and sand to produce the polished surface. The area over which the polishing extends varies much, but never, in true Australian implements, covers the whole surface. In regard to form there are also two main kinds: (*a*) grooved, and (*b*) ungrooved. In the case of the former (Case 43) there may be one or two grooves. The hafting of the axe was done by means of a bent withy of wood, the two halves being tied together by string or split cane; while the head is enclosed in wax or resin. In many cases, however, the implement was never hafted, and finger grips are present. Most of these axes are made from diabase or diorite, and in Victoria there were two principal quarries, one at Mt. William, between Lancefield and Kilmore, and another on the Hopkins River, near Chatsworth, where the material for these axes was obtained. At these quarries the ground is strewn with "blanks," that is, unfinished or rejected specimens.

(2) Wedges. It is difficult to draw a hard and fast line between axes and wedges. The latter occur all over Eastern Victoria, and may be grooved or ungrooved. In some cases they are made of vesicular basalt, and may be of little service for cutting. They appear to have been used for splitting wood, and in the better examples show a high grade of workmanship.

B. GRINDING AND POUNDING IMPLEMENTS. Grinding implements may be divided into kerns or mills and whetstones.

(1) Kerns or mills. There are three main types of these: (*a*) those that are roughly elliptical in shape, with one or more oval hollow grinding surfaces. (Case 54.) These are characteristic of many parts of the interior of Australia, and are made of close-grained sandstone. They are used principally for grinding grass seeds, though they

may also be used for grinding axes. In addition to the large lower stone, there is always a smaller shaped upper stone. (5) Those that are roughly circular in outline, though they may in some cases be only roughly shaped blocks. Each has from one to six spherical hollows, some of which (2) may be present in both sides. On the obverse side of the mill there is frequently present an indentation usually regarded as a husking hole. (6) Those that have a flat surface. (Case 49, Nos. 34, 44.) These are often used for grinding down pigment.

In some cases these grinding hollows are present on the surface of an axe. (Case 43, No. 16.)

(2) Whetstones (Cases 53 and 54) used as hones for the grinding of axes, more especially so far as the final production of the cutting edge is concerned.

(3) Pounding implements and husking stones. The former vary much in form, being sometimes irregular in shape (Case 50, No. 23), but often (Nos. 14, 22, &c.) symmetrical, with a definite pounding surface that may extend all round the stone. It is quite evident that in some the stone has been used for pounding relatively soft substances, such as fibre, whilst in others the worn surface shows traces of fracture. The husking stones or anvils (Case 52, Nos. 2, 11, 12) are marked by one or more relatively small depressions, which may be more or less smooth, but always show traces of hammering. They are used for the smashing of hard seeds, bones, &c.

STONE CHISELS OR ADZES. (Case 30.)

There are two distinct types of these instruments, which are found more especially amongst the tribes of the interior and west. In one of them the handle is straight or perhaps slightly curved, and a cutting stone is present at one end only; in the other the handle has a rounded curve, and there is a cutting stone at each end. The stone is of various forms, the most characteristic being that of a flake or chip of a dense quartzite, one surface of which has a single convex face, while the other is chipped and concave. It is by means of this, and also of the similar stone inserted into the end of the spear thrower, that the characteristic grooves which are so often seen on wooden implements are produced. The stone is attached to the handle by resin obtained from a

grass tree in the case of the Western Australian specimens, or from the porcupine grass (*Trioda sp.*) in the case of the Central Australian ones. There is usually part of the surface of the handle close to the stone roughened so that it can be firmly grasped by the hand of the operator.

1-3. Specimens from Western Australia, called Dowak or Dabba; the stone has a broad cutting surface. The handle of No. 1 is grooved; that of No. 2 is smooth; and that of No. 3 is grooved, except for a well-defined area close to the stone. (Fig. 155.)

4. Specimen from Central Australia, called Ankura or Chalunka, with a grooved handle, and stone with a broad cutting edge. Arunta tribe.

5. Specimen from Western Australia, called Dowak, with a pointed piece of quartzite. The handle is marked with broad, irregular grooves.

6. Specimen from Western Australia, with a short, straight cutting edge; the handle is irregularly grooved. Ngurla tribe, Roeburn. The handles of all the above specimens are made of some dark wood, such as that of an acacia.

7, 8. Two specimens from the interior of New South Wales. The stone has a broad cutting face, and the handle is of much rougher workmanship than in the case of those of the Western and Central Australian natives, and is made out of some light-coloured wood, such as a Eucalyptus.

9. Specimen from Central Australia, with a curved handle, and a cutting stone inserted in a mass of resin at each end. Native name, Ankura or Chalunka. (Presented by Mr. F. J. Gillen.) (Fig. 156.)

10-22. Central Australia. (10, 13, 14, 15, 18, 19, 20 presented by Professor Spencer and Mr. F. J. Gillen.)

23-26. Spear throwers with stones set in the handle to also serve as adzes. 22. Ashburton River, North-west Australia.

23-25. Central Australia.

FLAKED STONE AXES OR PICKS. (Case 31.)

This series illustrates the structure of flaked stone axes, which, like the flaked stone knives, are found amongst the more northern tribes. Each axe-head consists of a flake of quartzite, which is usually of a ridged form; that is, each flake is characteristically triangular in section. The back of the blade has a single flat surface. In most cases the front is formed of two surfaces inclined at an angle to each other and to the back, though in some specimens there may be more than two faces. There is often a fourth surface near to the attached end, and when this is present it lies parallel to the back surface. As in the case of the flaked knives, this

may be absent, or perhaps hidden from view by the resinous mass into which the flake is fixed. The two halves of the withy are fastened together by bands of string, which are sometimes enclosed in resin.

1-8. Specimens from the centre of Australia, such as are made by the Warramunga, Worgain, Arunta, and other tribes, and are traded over wide areas in the interior of the continent. In all of these the withy is bent double, and each is provided with a sheath made of bark tied round with fur string. The two halves of the handle are tied round with human hair or vegetable-fibre string, and are covered with red ochre. (2, 4, 5 presented by Professor Spencer and Mr. F. J. Gillen.) (Figs. 166, 167.)

9-1a. Specimens from the Arunta tribe, in which the flake is inserted into a split stick. (10, 11 presented by Professor Spencer and Mr. F. J. Gillen.)

16. Specimen from Queensland, in which the withy is bent double, and the front of the blade has four distinct faces. The end of the flake, unlike that of the other specimens, projects beyond the mass of resin. The two halves of the handle are tied round with a neatly plaited circle of thin strips of cane.

CHIPPED AND FLAKED STONE IMPLEMENTS.

(Case 32.)

This series illustrates the use of stone, usually quartzite, which is adapted for chipping and flaking, but not for grinding. In all cases the stones are attached by resin to spears, or else are fixed in a mass of the same, which serves as a handle, though, as in the roughly chipped pieces of quartzite used by the women in the Kaitish tribe, the handle may be only roughly shaped. In the case of the latter implements the flaking and chipping is of the rudest kind, but in the larger knives, such as 30a, 42, &c., the workmanship is excellent. As a general rule the flake is ridged, with a single broad back surface, and two front surfaces inclined at an angle to each other. A fourth may be present on the front, parallel to the back surface of the blade, down which it extends for a shorter or longer distance (30a). A somewhat unusual form is seen in 32, where, instead of a terminal point, there is an obliquely placed cutting edge. The most highly developed forms are seen in the chipped chakoolanir spear heads, the edges of which are beautifully serrated (53, 58).

1-7a. Flaked spear heads, some of them showing secondary chipping. They have been detached from the spears, to

which they are, when in use, attached by resin. No. 7 made of slate, the others of quartzite. From northern tribes in Central Australia. (Fig. 165.)

8. Spear head of quartzite; an exceptionally long flake with only three faces. Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen.)

9-12. Spear heads, showing an unusual amount of secondary chipping. Daly River, Northern Territory.

13-16. Four roughly flaked knives or spear heads. Tjingilli tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

17-29. Thirteen specimens illustrating a special form of knife used by women only in the Kaitish and Warramunga tribes, Central Australia. This forms a very distinct type. One side of the blade is always formed by a single smooth face (25). The other has typically a distinct shoulder near to the obtusely pointed end. From the top of the shoulder down to the end and then back along each margin the blade is covered with secondary chippings. The handle end is normally hafted with resin. (Fig. 162.)

29A. An implement closely resembling in form the women's knives from Central Australia. It shows the same smooth single surface on one side, the other having the characteristic shoulder and extensive secondary chippings. It was apparently unhafted, and its use is unknown. (From Camperdown. Presented by Mr. S. F. Mann.)

30-42. A series of flaked quartzite knives from Central Australia. Knives such as these are found widely scattered amongst the tribes inhabiting the whole of the central and northern part of Australia. The great extent of hard quartzite formation associated with the deposit known as the "Desert Sandstone" over large parts of the interior of the continent provides an abundant supply of material which is well adapted for flaking. In each specimen the blade has a handle made of resin derived from the porcupine grass (*Triodia*), and this may be ornamented with red ochre and various designs, or may be uncoloured. Sometimes (Nos. 38 and 40) a band of bird's down may be added as an ornament. The knife blade, when carried about, is enclosed in a sheath made of bark tied round with fur string and tipped with a bunch of emu feathers. (Fig. 161.) All the specimens come from the Arunta and Warramunga tribes, Central Australia. (33, 39, 40 presented by Mr. C. French. 34, 35, 37, 41, 42 presented by Professor Spencer and Mr. F. J. Gillen.)

43-46. Spear heads with so large an amount of secondary chipping that, in some cases where there is chipping on both

sides of the stone (45), they almost suggest a transition from the ordinary flaked and slightly chipped spear heads to the definitely chipped and serrated forms. Same in size, and in the secondary chipping being only slightly marked on the lower side of 45, there is a close resemblance between 45 and 49. From the Daly River, Northern Territory.

47-98. A series of chipped and serrated knives and spear heads made of stone of various qualities. In some (89-98) the material used is a compact sandstone or quartzite; in others (82, 86, 87) it is an opaline quartzite; and in some (56, 57) it has almost the nature of jasper or chaledony. These specimens represent the highest level in the manufacture of stone implements reached by the Australian aboriginal, and are only made in certain parts of North-west Australia. In workmanship they are equal to the best prehistoric stone implements of the Old World. In some cases (84 and 90-98) the serrations may be very pronounced. (84-98 presented by Mr. E. G. Austin, 53 presented by Professor Spencer.) In rare instances shell is used. (126 presented by Miss A. Kearland.)

99-125. With the advent of the white man the aboriginal took advantage of glass bottles, porcelain jars, and telegraph insulators. Nos. 99, 100, 123, 124, 125, &c., represent his finest work in these materials. (99-125 presented by Mr. E. G. Austin.)

127. Spear head showing the method of hafting with resin. (Presented by Professor Spencer.)

128. Small parcel of paper-bark containing a number of serrated stone spear heads in process of making. The material used is quartzite of various qualities, some of it being of the opaline and chaledonic varieties. The heads are in different stages of manufacture, some of them roughly shaped, others ready for the final stage of production of the sharp point and side serrations. The parcel was carried about by a native who worked on the stones when opportunity offered. Port George IV., North-west Australia. (Presented by Rev. R. H. Wilson.)

129, 130. Ulna and Fibula of a Kangaroo. One end of each has been broken and ground so as to have roughly the form of a gouge. This implement is called Jimba, and is used for making the fine serrations on spear heads by means of pressure applied steadily to the edge of the stone, which has previously been chipped and flaked so as to have the desired shape. Port George IV., North-west Australia. (Presented by Rev. R. H. Wilson.)

FLAKED STONE KNIVES. (Case 33.)

1. Resin hafted. The blade is made of a flake of some suitable stone, usually a close-grained quartzite, such as is associated with the "desert Sandstone" formation that occupies a large area in the interior of Queensland, New South Wales, and the Northern Territory. The flakes vary very much in shape and size. The simplest has three long facets tapering to a point, but there is no such thing as any regulation pattern, and any which are suitable for the purpose are used. In some cases small secondary chips are added, but this is not frequent. They are made by successive sharp blows applied to the rim of a small block of quartzite or other suitable material by a small stone held in the hand. The blows are repeated until a flake of the requisite form is split off, but for every one that is regarded as suitable for use scores of unsuitable ones are detached, the knife quarries being strewn with these discarded "blanks." The handle end is embedded in a mass of resin, and for the protection of the blade a sheaf is made. Strips of the bark of the "paper-bark" tea-tree (*Melaleuca leucodendron*) are bent together so as closely to encase the blade. The bark is wound round and round with fur string (usually opossum fur), and then a coating of white material, such as ground-up gypsum, mixed with water, is used. By way of extra ornament, the end is tipped with a little bunch of emu feathers—only very rarely those of any other bird are used. The feathers are always attached to a small pointed stick in such a way that the quill-ends are free. Knives such as these are used all over Australia. 1-19. From the Warramunga tribe, Central Australia. (1-5 presented by Professor Spencer and Mr. F. J. Gillen.)

FLAKED STONE KNIVES. (Case 34.)

2. Resin and wooden hafted. This series illustrates the structure of wooden-hafted knives which have been found amongst the northern tribes in the interior of Australia. Each blade consists of a flake of quartzite of a ridged form; that is, each flake is characteristically triangular in section. The back of the blade, as it may be called, has a single flat surface, while the front is formed of two surfaces inclined at an angle to each other and to the back. There is often a fourth surface near to the attached end, and this lies in the plane of the wooden haft. This fourth surface varies much in extent, and may sometimes be completely hidden from view by the resinous mass into which the flake is fixed at one end, while at the other the wooden haft is inserted. The resin is

obtained from porcupine grass (*Proclia*), and ornamented with a coating of red ochre, while the haft is coloured with lines and dots of red, white, black, and yellow, the dots being sometimes continued on the resin. The blade is protected by a sheath, which is usually made of bark tied round with fur string, the whole surface being then coated with pipeclay or kaolin, and a small tuft of eum feathers, with tips inserted, ornaments the end of the sheath. (Fig. 160.) These specimens are all from the Warramunga and Kaitish tribes, by the members of which they are made. They are traded over wide areas. (8-14, 16-21 presented by Professor Spencer and Mr. F. J. Gillen.)

FLAKED STONE KNIVES. (Case 35.)

This series is a continuation of those in Case 34. All the specimens are from the Warramunga tribe, Central Australia.

GLASS SPEAR HEADS. (Case 36.)

Chipped and serrated glass spear heads from North-western Australia. It is only in the latter part of the continent that these beautifully serrated spear heads are made. (Case 32). Since the advent of white men the native has used glass in place of quartzite. The former he secures in the form of bottles of various kinds. In some cases a portion of the original smooth surface is retained, but in most the whole face of the implement is worked. The fine point and serrated edge are produced by pressure. Along the overland telegraph line the natives frequently used insulators instead of glass. (3-54. Presented by Mr. C. Barnett. 55, 56. Bequest of Mr. Geo. McArthur. 57, 58. Presented by Mr. A. L. Prentice.)

GROUND-STONE AXES. (Case 37.)

These axes are characteristic examples of the ground-stone implements used by the tribes of New South Wales and Victoria. Each stone is enclosed in a withy made of some pliable wood, the head of the stone, which is a form of diorite, being fastened to the wooden handle by means of a mass of resin derived from grass trees. Some of the stones are much better ground than others; No. 7, especially, seems to be a more or less naturally shaped stone, which has been chipped to a certain extent, and only slightly ground at the cutting edge. No. 4 (Fig. 158) is of interest as being the axe which was carried about and for many years used by William Buckley, the runaway convict, who for fifty years lived amongst the native tribe which inhabited the country round the head of Corio Bay, where Geelong is now situated. (Presented by Mr. Gordon A. Thomson.)

GROUND-STONE AXES. (Case 38.)

These axes are characteristic examples of the ground-stone implements used by the tribes of Central Australia. The stones are all composed of a finely grained diorite, and each one is enclosed in a withy of pliant wood, the two halves of which are bound together by means of human-hair string, which may be enclosed in a covering of resinous material derived from porcupine grass. The wooden handle, as is characteristic of Central Australian implements, is coloured with red ochre. The diorite, of which these weapons are made, is only found in certain places, and is a valuable article of exchange. (Fig. 157.) 6-11 presented by Professor Spencer and Mr. F. J. Gillen.)

GROUND-STONE AXES. (Case 39.)

1. Block of diorite roughly chipped into shape ready to be further chipped and then ground to form an axe-head. Warramunga tribe, Temnant Creek, Central Australia.

2. Block of diorite chipped and partly pounded preparatory to grinding it for an axe-head. Warramunga tribe.

3. Ground-stone axe, showing the method of hafting. This is done by heating a withy of wood cut from the stem of a young gum tree, then bending it round the blunt end of the blade, and securing the two ends of the handle with a band of human-hair string. Part of the blade is afterwards encased in resin obtained from porcupine grass to fix it more firmly to the handle. Warramunga tribe.

4. Large hafted ground-stone axe from the Umbaia tribe, Northern Territory. (1-4 presented by Professor Spencer and Mr. F. J. Gillen.)

5. Axe from Melville Island, of very crude form; remarkable for the fact that there is only a very slight trace of grinding. (Presented by Mr. R. J. Cooper.)

6. From the Binbinga tribe, Macarthur River, Northern Territory. (Presented by Professor Spencer and Mr. F. J. Gillen.)

7, 8. From the Kakadu tribe, Alligator River, Northern Territory. 8 is of very crude form, showing only slight traces of grinding. (Presented by Professor Spencer.)

9. Axe with ground-stone head secured by resin to a handle of twisted twigs. South-west Queensland.

10. Axe with a flat ground-stone blade mounted in a cane handle, which is bent round the blunt end of the blade and fixed to it with resin. North Queensland.

11. Axe with flat ground-stone blade mounted in a cane handle, which is bent round a groove cut in the blunt end of the blade. Hinchinbrook Island, Queensland.

STONE HAMMER AXES. (Case 40.)

This form of combined hammer and axe is found in Western Australia. To one end of a stick a mass of gum-tree resin is attached, and into this, at opposite ends, are fixed two pieces of stone (apparently granite or diabase). As in 1, the stone at one end has a distinct cutting edge, while at the other it is blunter and probably serves as a hammer; but in some cases, as in 2 and 6, there is no cutting edge at either end. No. 4 is remarkable for the very small surface of stone which is exposed. In every example the chipping of the stone is of the crudest possible nature, and, if found alone, the stone would certainly not be recognised as the work of man. It is possible that in some cases the stone runs continuously through the resin. The end of the handle is sharpened so that it can be driven into the trunk of a tree, and to assist the native in climbing. All the specimens are from Western Australia, in which part only of the continent this form of implement has yet been found. Native name, Kadjo.

GROUND STONE AXES. (Case 41.)

A series representing various sizes, shapes of cutting edge and degrees of grinding. In some cases the ground surface may be very small (13); in others it may occupy between a third and a half of the surface. 16 is an example of a large axe made of diorite, Northern Territory. (Presented by Professor Spencer.) 28 is ground at both ends. 50. A specially large axe. Tully R., Queensland.

GAD-SHAPED AXES, Etc. (Case 42.)

Nos. 1-12. A series representing gad-shaped axes, the extreme, almost cylindrical, form of which is seen in No. 10. Gad-shaped axes are more generally found in Eastern Victoria. Nos. 13-16 are heavy, ovate, ground axes. Nos. 17-25 are examples of ground axes made out of pebbles.

GROOVED AXES. (Case 43.)

A series of grooved axes, some of them of large size. In all of them one groove is present, except in No. 8, where there are two. These grooves were used for attaching the withy. Nos. 15 and 16 show husking holes, which are present on both sides. The ovate-shaped forms lock on with the wedges, from which it is sometimes difficult to separate them.

STONE WEDGES AND AXES CHIPPED ON ONE SIDE ONLY. (Case 44.)

Nos. 1-7. Ground-stone wedges. Nos. 8-18. A series representing pebble axes chipped on one side only.

PEBBLE AXES. (Case 45.)

Nos. 1-9. Pebble axes chipped on one side only. Nos. 10-15. Pebble axes chipped on both sides. Nos. 16-25. Pebble axes chipped and slightly ground.

VARIOUS CHIPPED IMPLEMENTS. (Case 46.)

Nos. 1-9 suggest a rostro-carinate form. They are found all over Victoria, but most frequently in the Western District. (Presented by Mr. A. S. Kenyon.) Nos. 10-19 resemble the rostro-carinate form in the manner of chipping but are consistently roughly circular in shape. These forms gradually approach the typical chipped scrapers, making it impossible in this, as in many other cases, to draw a hard-and-fast line of distinction between different types of implements. Their use is conjectural; possibly they were used in scraping down the surface of wooden implements. They are found all over Victoria. (Presented by Mr. A. S. Kenyon.) Nos. 20-22 are scrapers of a special form, made out of pebbles, the chipped face being lateral. Nos. 23-35. A few specimens illustrative of a vast number of chipped implements, the form and nature of which varies according to the material available. They are widely scattered over the whole of Australia, wherever material suitable for chipping is obtainable, and amongst them can be found representatives of nearly all the palæolithic and even more primitive implements of the Old World. (Presented by Mr. A. S. Kenyon.)

"BLANKS," PARTLY GROUND AXES, GROUND KNIVES. (Case 47.)

Nos. 1-12. A series of "blanks," that is, unfinished axes, found in old axe-head quarries, such as that at Mt. William, near Lancefield. Scattered around these old aboriginal quarries are numberless axe-heads, either unfinished or discarded as unsatisfactory. The quarries are found at such places as Mt. William; in the Grampian Mountains; on the Hopkins River; at Salt Creek, near Bolae; at the Dog Rocks, near Geelong; at Katandra, in the Goulburn Valley; and at many other places where there are outcrops of suitable rocks. (Presented by Mr. A. S. Kenyon.) Nos. 13-19. Axes the grinding of which has not been completed. Nos. 20-50. Ground-stone knives. The larger ones of these might be regarded either as small axes or large knives. There is a great range in size amongst them from No. 48, which is almost pigmy in size, to No. 51, which is not distinguishable from an axe. The material used is generally finer grained

and tougher than that employed for axes. Knives such as these were used for various purposes, such as scratching skins to make them supple, removing hair from various parts of the body, &c. (20, 25, 31, 34, 40 presented by Mr. H. W. Buhl; 31 presented by Mr. R. Gay; 46 presented by Mr. A. L. Prentiss.)

SPOKESHAVES, CHIPPED FLAKES, Etc. (Case 48.)

Series 1-5. Piquet implements probably used for cutting and scraping various objects. The best name for these is probably spokeshaves. They have a strong resemblance to certain Aurignacian implements. The hooked ones are used for smoothing down surfaces and probably sharpening wooden spear points. Glen Thompson, in the Grampian Mountains; Lake Tyrrell, in the Mallee. (Presented by Mr. A. S. Kinton.)

Nos. 6-13. Chipped pointed implements resembling spear heads, in some cases (8 and 9) showing much secondary working. (Presented by Mr. G. A. Hobler.)

Nos. 14-40. Chipped stone knives of varied form, many of them indistinguishable from small scrapers. Extremes of form are seen in Nos. 22 and 40.

Nos. 41-61. Flaked stone knives.

Nos. 62-101. Chipped stone flakes, used in many cases as adzes, and hafted.

GRINDING STONES. (Case 49.)

Various forms of grinding stones. Nos. 2, 51, and 52 are blocks of vesicular basalt, with hemispherical hollows on each side. In some, such as Nos. 7, 8, 11, 12, 13, 14, 17, 18, 25, 26, &c., it is quite evident that the hollows have been produced by grinding, an upper stone being held in the hand; by others, such as Nos. 23 and 29, it is equally clear that the stone has been used as an anvil or husking stone. Others, such as 31 and 44, have flat surfaces, and have been used for rubbing down soft substances, such as ochre; whilst others, such as 35, have been used as abrasives. Two examples (Nos. 33 and 38) lead on to the large grinding stones of milk shown in Case 54. 35 and 50 have been used as whetstones for sharpening stone axes.

1. Hochkirch, Victoria. 2. Lake Lindrigow, Victoria. 3. Mortlake. (Presented by Mr. H. Quinby.) 4. Lower Murray. 5. Onega. 6. Near Warracoot, New South Wales. (Presented by Mr. F. Culmore.) 7. Lower Murray. 8. North-west Victoria. 9. Victoria. 10. Brown Creek. 11. Arden. 12. Wimmera. 13. Victoria. 14. Near Warracoot. (Presented by Mr. F. Culmore.) 15. Parda. (Presented by

Mr. J. Allen.) 16. Deniliquin. (Presented by Mr. R. McCrae.) 17. Victoria. 18. Near Corowa. (Presented by Mr. J. G. Gray.) 19. Victoria. 20. Lower Goulburn. 21. Loddon River. 22. Avon River. 23. Wimmera. 24 and 25. Milkengay Lake, New South Wales. (Presented by Mr. M. R. Cudmore.) 26. Wimmera. 27. Mortlake. 28. North-west Victoria. 29. Milkengay Lake, New South Wales. (Presented by Mr. M. R. Cudmore.) 30. Near Corowa. (Presented by Mr. J. G. Gray.) 31. Victoria. 32. Euston, New South Wales. 33. New South Wales. 34. Darwin. (Presented by Professor Spencer.) 35. Near Corowa. 36. Victoria. 37. Near Hamilton. (Presented by Mr. C. French.) 38. Near Corowa. (Presented by Mr. J. G. Gray.) 39. Victoria. 40. Victoria. 41. Near Corowa. (Presented by Mr. J. G. Gray.) 42. Altona Bay. 43. Willaura. (Presented by Mr. A. S. Kenyon.) 44. Upper Goulburn River. 45. Victoria. 46. Upper Goulburn, Victoria. 47. Victoria. 48. Near Wentworth. (Presented by Mr. F. Cudmore.) 49 and 50. Darling River, New South Wales. 51 and 52. Near Hamilton. (Presented by Mr. E. G. Austin.) 53. Jeparit, Victoria. (Presented by Constable Wilson.) 54. Lake Bolae. (Presented by Messrs. T. Park and O'Rourke.)

GRINDING AND POUNDING STONES. (Case 50.)

Nos. 1-5. Pestle-shaped upper stones used for grinding in mills. Nos. 9-28. Pounding stones. The marks on their edges show where they have been used for grinding or pounding. In some cases, also (26), they have been used as nether stones for grinding or (28) husking.

CHIPPING HAMMERS. (Case 51.)

Nos. 1-18. Chipping hammers used for the chipping and flaking of knives, adzes, &c. Nos. 1 and 2 clearly show hollows made to allow the stone to be gripped firmly by the fingers. Nos. 19-29. Hammers or pounding stones.

ANVILS, HUSKING STONES. (Case 52.)

Nos. 1-12. Anvils or husking stones. The concavities are made by the pounding action of a stone used as a pounder or hammer. In the case of No. 9 an ordinary axe-head has been used as a husking stone. (Presented by Mr. J. J. Fletcher.) Nos. 13-15. Stones used as weights to assist in maintaining the shape of the basket during its manufacture. Nos. 16-22. Stones used for throwing at birds, &c. Nos. 23-36. Playing stones.

GRINDING AND WHETSTONES. (Case 53.)

Stones used for dressing and smoothing shafts of spears, clubs, &c.; some of them, such as No. 6, have evidently been used also as whetstones. Nos. 11-31. Stones used as grindstones and whetstones. No. 20 was cut from a solid rock surface in the Goulburn Valley.

GRINDING STONES. (Case 54.)

Large grinding stones. These are made from suitable slabs of close-grained sandstone, and must often be carried long distances, because they are frequently found in camps far away from sandstone formations. When camp is shifted they are buried in the ground or hidden in a rock cleft. Then are used principally for grinding grass seeds, out of which the natives made crude cakes. The seeds are placed on the grindstone, water is added, and the grinding process is conducted by means of the "muller" stone held in the hand. In some cases (No. 10) there may be more than one grinding surface; and also, as in No. 2, both sides of the stone have been used. No. 1 shows a specimen in which the stone has been ground through, and it is evident from the smoothness, size, and depth of the concavities, that many of these stones have been in use for a long time. Nos. 11, 12, 13, 14, 15 are "muller" stones.

1, 5, 8, 9, 12, 13, 15. From Popio, 40 miles west of Pooncarie, New South Wales. (Presented by Mr. M. R. Cudmore.) 2 and 18. From Milkengay Lake. (Presented by Mr. M. R. Cudmore.) 3, 4, and 11. From near Corowa. (Presented by Mr. J. G. Gray.) 6. From the Gawler Range. (Presented by Professor Spencer.) 7. From Bourke. 10. From the Darling River. 14. From New South Wales. (Presented by Professor Spencer.) 16. From Charleville, Queensland. (Presented by Mr. E. G. Austin.) 17. From the Darling River. (Presented by Mr. E. G. Austin.) 19. From Wilcannia. (Presented by Rev. W. Webster.)

CYLINDRICO-CONICAL AND CORNUTE STONE IMPLEMENTS. (Case 54a.)

Though a large number of these stones have been described, it is not possible to say anything definite in regard to their use and significance. They have been variously designated as ceremonial stones of some nature, pounders, Phallic symbols, grave markers, &c. The evidence in all cases is very meagre and inconclusive, but such as there is seems to

suggest that they were ceremonial in function. They may have been associated with ceremonies for the increase of the food supply. Their distribution is well marked, coinciding roughly with the country occupied by the Barkinji, Itchumundi, and Karamundi nations, and drained by the River Darling and its tributaries, though the extreme northern locality is Muttaborra, in Queensland, and the extreme western is Hergott Springs, in South Australia. They are found sometimes on the surface of the ground bordering the clay pans that form a characteristic feature of the central country, at others on, or in, the sand hills around them.

They may be divided roughly into two main types (1) cylindrico-conical, and (2) cornute, but, as the specimens exhibited show, there is a gradual and complete transition from the smallest and most dumpy cornute form to the largest and straightest cylindrical—there is no break in the series.

(1).—CYLINDRICO-CONICAL TYPE.

These vary in length from less than 3 inches to 26 inches. In general form they may be thin and elongate (51, 52), or short and stout (96, 97), and, in transverse section, circular or oval. The material of which they are made is either slate (4, 8, 82) or some form of sandstone, varying from a soft, largely decomposed felspathic sandstone (89, 94, 95) to a hard quartzite (46-49). One specimen (63) is composed of a very soft ochreous claystone. All of them are made of material found *in situ*, though in not a few cases the rock may be so decomposed (94) as to suggest that they have been moulded out of some substance such as gypsum mixed with clay. A feature peculiar to them all is the distinctly flattened or saucer-shaped base (73) which in rare cases may be radiately grooved. Rarely also (59) the original tip end may be flattened. Nos. 101, 102, 103 are evidently broken pieces that have been used as pounders or upper grindstones, whilst, on the other hand, No. 40 has equally clearly been used as a pounding stone. Such are of rare occurrence, and must indicate only a secondary use. In the great majority the surface is smooth, but a curious feature of a small number is the presence of rudely-made incisions which take the form of (*a*) emu feet, (*b*) longitudinal, and (*c*) transverse lines. In a few (78, 98, 100) a ring is present a short distance below the apex which may also bear radial cuts. The meaning of these markings, which are chiefly remarkable for their crudeness, in which respect they stand in marked contrast to those incised on the ceremonial objects of other Central Australian tribes, is entirely unknown. There is no direct evidence that they are phallic.

(2.)—CORNUTE TYPE.

These, in their most pronounced form (116, &c.) are much smaller in length than the cylindrical type, but, on the other hand, they show a series leading from the rounded pebble (104) that has also been used as a pounder, to the typical cornutes (116, 119) and so on to the more elongate and only slightly curved forms (120, 71, 13, 16) that shade imperceptibly into the straight stones.

This unique and extensive collection was made for the Museum by Messrs. H. S. Officer and A. S. Kenyon. The locality and the name of the donor are attached to each specimen.

1. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 2. Louth, New South Wales. (Presented by Mr. H. Murray.) 3. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 4. Wilcannia, New South Wales. (Presented by Miss Byrnes.) 5. North-west New South Wales. 6. Goorimpa, New South Wales. (Presented by Mr. H. S. Officer.) 7. Wilcannia, New South Wales. (Presented by Miss Officer.) 8. Louth, New South Wales. (Presented by Mr. Tulloh.) 9. Wilcannia, New South Wales. 10. Goorimpa, New South Wales. (Presented by Mr. H. S. Officer.) 11. Wilcannia, New South Wales. (Presented by Mrs. Johnston.) 12. Tilpa, New South Wales. (Presented by Mr. G. Turner.) 13. Kallara, New South Wales. (Presented by Mr. Tulloh.) 14. Wilcannia, New South Wales. 15. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 16. Tilpa, New South Wales. (Presented by Mrs. Melmerney.) 17. Marra, New South Wales. (Presented by Mr. John Leigo.) 18. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 19. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 20. Wilcannia, New South Wales. 21. Louth, New South Wales. (Presented by Mr. H. Murray.) 22. Tilpa, New South Wales. (Presented by Mr. G. Turner.) 23. Wilcannia, New South Wales. (Presented by Mrs. Johnston.) 24. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 25. Tilpa, New South Wales. (Presented by Mrs. Melmerney.) 26. Wilcannia, New South Wales. (Presented by Mr. T. A. Doolan.) 27. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 28. Wilcannia, New South Wales. (Presented by Mr. W. Pike.) 29. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 30. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 31. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 32. Marra, New South Wales. (Presented by Mr. John Leigo.) 33. Wilcannia, New South Wales. 34. Louth, New South Wales.

(Presented by Mr. H. S. Officer.) 35. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 36. Wilcannia, New South Wales. (Presented by Miss Officer.) 37. Wilcannia, New South Wales. (Presented by Mr. W. T. Dell.) 38. Kallara, New South Wales. (Presented by Mr. A. S. Kenyon.) 39. Louth, New South Wales. (Presented by Mr. H. Murray.) 40. Darling River, New South Wales. 41. Marra, New South Wales. (Presented by Mr. John Leigo.) 42. Darling River, New South Wales (Moorara). 43. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 44. Louth, New South Wales. (Presented by Mr. H. Murray.) 45. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.) 46. Kallara, New South Wales. (Presented by Mr. A. S. Kenyon.) 47. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.) 48. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.) 49. Murtee, New South Wales. (Presented by Mr. A. S. Kenyon.) 50. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 51. Wilcannia, New South Wales. (Presented by Miss Officer.) 52. Paroo River, New South Wales. (Presented by Mr. A. S. Kenyon.) 53. Louth, New South Wales. (Presented by Mr. A. S. Kenyon.) 54. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 55. Wilcannia, New South Wales. (Presented by Mrs. Johnston.) 56. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 57. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 58. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 59. Tilpa, New South Wales. (Presented by Mrs. McInerney.) 60. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.) 61. Tilpa, New South Wales. (Presented by Mrs. McInerney.) 62. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 63. Louth, New South Wales. (Presented by Mr. H. Murray.) 64. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 65. Wilcannia, New South Wales. 66. Near Broken Hill, New South Wales. (Presented by Dr. Dobbyn.) 67. Louth, New South Wales. (Presented by Mr. H. Murray.) 68. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 69. Kallara, New South Wales. (Presented by Mr. H. S. Officer.) 70. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 71. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.) 72. Kallara, New South Wales. (Presented by Mr. H. S. Officer.) 73. Wilcannia, New South Wales. (Presented by Mrs. Johnston.) 74. Louth, New South Wales. (Presented by Mr. H. Murray.) 75. Kallara, New South Wales. (Presented by Mr. A. S. Kenyon.) 76. Wilcannia,

New South Wales. (Presented by Mr. W. T. Dell.) 77. Darling River, New South Wales. (Presented by Mr. J. A. Field.) 78. Kallara, New South Wales. (Presented by Mr. Tulloh.) 79. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 80. Marra, New South Wales. (Presented by Mr. John Leigo.) 81. Cuthero Station, Darling River, New South Wales. (Presented by Mr. L. Bell.) 82. Wentworth, New South Wales. (Presented by Professor Spencer.) 83. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 84. Kallara, New South Wales. (Presented by Mr. Tulloh.) 85. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 86. New South Wales. (Presented by Mr. S. F. Mann.) 87. Tongo Lake, New South Wales. (Presented by Mrs. Hourigan.) 88. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 89. Copago, New South Wales. (Presented by Mrs. Johnston.) 90. Wilcannia, New South Wales. (Presented by Mr. W. T. Dell.) 91. Louth, New South Wales. (Presented by Mr. H. Murray.) 92. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 93. Kallara, New South Wales. (Presented by Mr. A. S. Kenyon.) 94. Wilcannia, New South Wales. (Presented by Mr. W. Pike.) 95. Kallara, New South Wales. (Presented by Mr. H. S. Officer.) 96. Copago, New South Wales. (Presented by Mrs. Johnston.) 97. Copago, New South Wales. (Presented by Mrs. Johnston.) 98. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 99. Tongo Lake, New South Wales. (Presented by Mrs. Hourigan.) 100. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 101. Wilcannia, New South Wales. 102. Tongo Lake, New South Wales. (Presented by Mr. A. S. Kenyon.) 103. Copago, New South Wales. (Presented by Mrs. Johnston.) 104. Louth, New South Wales. (Presented by Mr. H. Murray.) 105. Wilcannia, New South Wales. (Presented by Miss Officer.) 106. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 107. Kallara, New South Wales. (Presented by Mr. A. S. Kenyon.) 108. Louth, New South Wales. (Presented by Mr. H. S. Officer.) 109. Louth, New South Wales. (Presented by Messrs. Murray Brothers.) 110. Marra, New South Wales. (Presented by Mr. John Leigo.) 111. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 112. Tilpa, New South Wales. (Presented by Mrs. Melnerney.) 113. Wilcannia, New South Wales. (Presented by Mrs. Mitselberg.) 114. Wilcannia, New South Wales. (Presented by Mr. John Leigo.) 115. Marra, New South Wales. (Presented by Mr. John Leigo.) 116. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.) 117. Wilcannia, New South

Wales. (Presented by Mrs. Mitselberg.) 118. Copago, New South Wales. (Presented by Mrs. Johnston.) 119. Darling River, New South Wales. (Presented by Mr. C. G. Officer.) 120. Wilcannia, New South Wales. (Presented by Mr. A. S. Kenyon.)

TASMANIAN STONE IMPLEMENTS. (Case 55.)

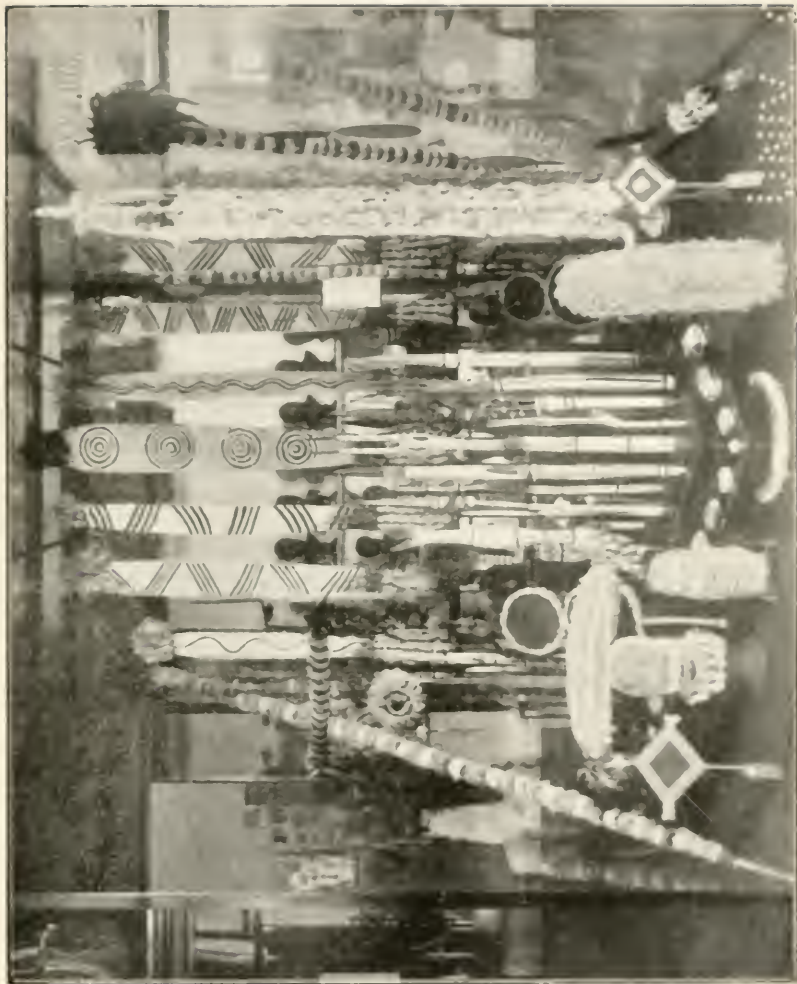
The only stone implements used by the Tasmanian aboriginals were roughly flaked stones, sometimes improved as cutting and scraping implements by means of secondary chippings. In no case were any hafted; all were held in the hand. They vary much in size from the "hand axes," 4 to 6 inches in length to small chips less than an inch in diameter. The main types seem to have been axes, scrapers, some of which were notched like certain Australian and prehistoric forms, and pounders. They are all decidedly crude, some of them so much so that unless they had been found on definite camping grounds along with better-fashioned ones, they would, just as in the case of many Australian implements, scarcely be recognised as human in origin. The resemblance between them and the cruder forms of Australian flaked implements (Case 46) is very striking.

COMPARATIVE SERIES OF STONE IMPLEMENTS. (Case 56.)

A comparative series in which stone implements of various kinds from Australia and Tasmania are placed side by side with approximately similar implements from prehistoric remains in the old world. The close resemblance between the two series is very evident, such differences as exist being due to differences in the material available.

CEREMONIAL OBJECTS. (Case 57.) Nos. 1-60a.

The objects in this case represent a typical series of those which are used during and in connexion with the performance of sacred ceremonies, more especially those associated with the totems in various Central Australian tribes. In some instances, as, for example, in that of the Nurtunjas and Waningas, the object is supposed for the time being to represent the totemic animal or plant; in others the designs drawn on the head-dresses are associated with the particular totemic group in connexion with which the ceremony is being performed, as, for example, in the case of the wooden slabs from the Tjingilli tribe, decorated with conventional drawings of yams. In other cases there is no apparent connexion at the present day between the design and the



CASE OF CEREMONIAL OBJECTS.

totemic group with which it is associated, as in the instance of the large wooden slabs used during the rain ceremony. Under normal conditions the designs are removed from the objects at the close of the ceremonies in which they have been used. The Nurtunjas, Waningas, and similar objects are always taken to pieces as soon as ever the ceremony is concluded, the same Nurtunja or Waninga, as the case may be, never being used for more than the one ceremony. Two apparently closely similar objects will represent totally distinct things, according to the nature of the ceremonies in which they are used. As they are intimately connected with sacred ceremonies, the various objects are themselves regarded as being sacred, and may not be seen by any one who is not an initiated member of the tribe. The decorations consist of down, derived either from birds, more especially the eaglehawk, or from plants, such as species of *Epilates*. In some cases the two forms may be mixed together, and the down is always covered with pipeclay or red ochre, and fixed on by means of human blood.

1. Nurtunja used during the performance of a ceremony associated with the Achilpa totem ("wild cat") of the Arunta tribe. The top is decorated with a bunch of eaglehawk feathers, and nine wooden Churinga are attached to it. The Nurtunja is supposed for the time being to represent the animal which gives its name to the totemic group, and the Churinga belong to individual members of the same. (Fig. 169.)

2. Nurtunja associated with the Achilpa totem ("wild cat") of the Arunta tribe. Six wooden Churinga are attached to it. This and the one above described are fixed upright in the ground during the performance of the ceremony, and the men dance round and round shouting "Wah! Wah!"

3. A similar Nurtunja used during the performance of a ceremony associated with a kangaroo totemic group. This one was carried by a man, who held it up with both hands behind his back. Arunta tribe.

4. Nurtunja used during the performance of a ceremony associated with the "plum tree" totemic group. For the time being it represented the totemic plant, and was carried, as shown, on the head of a man, the decoration of whose face is copied on the east. Arunta tribe.

5. Nurtunja used during the performance of a ceremony connected with the sun totem. This was worn on the head; the down used is derived from the involueral hairs of a species of *Portulaca*. The bun-shaped object (45) represents the sun and its rays. Arunta tribe.

6. Waninga. This has the same significance as the Nurtunja, and is used more especially amongst the members of the southern groups of the Arunta tribe and in the Luritja tribe. It varies in size and form to a large extent. This one is made out of a central spear with short cross-bars, strands of human hair passing from bar to bar parallel to the length of the spear. Eaglehawk down is attached by means of human blood. Rain totem. Arunta tribe. (Fig. 168.)

7. Waninga used in connexion with a rat totem. The main part is supposed to represent the trunk of the animal, the point end the tail, and the handle end the head. The cross pieces indicate the limbs. Arunta tribe.

8, 9. Two small Waningas used during the performance of a ceremony associated with a kangaroo totemic group. Arunta tribe.

10. Three bunches of the tail feathers of the black cockatoo, with down attached to their tips. They were used during the performance of a sacred ceremony connected with the Irriakura totem (Irriakura is the name of the tuber of a Cyrenis plant, which is a favorite food of the natives). For the time being the feathers symbolized the flowering Irriakura. Arunta tribe. (Fig. 172.)

11. Head ornament of the tail feathers of the black cockatoo, tipped with bird's down. Used during the performance of a rain ceremony. Arunta tribe.

12. Three "pointing sticks," carried on the head of a man representing an "Oruncha," or mischievous spirit. Arunta tribe.

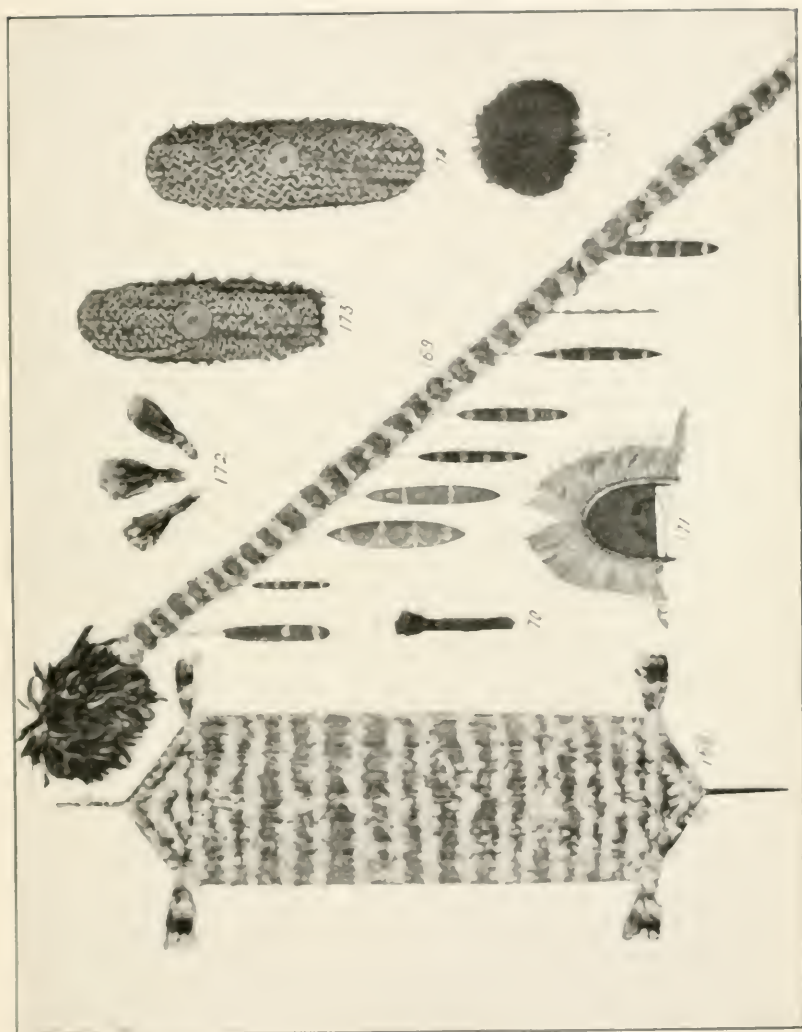
13-16. Shields decorated with designs in ochre and down. Used during sacred ceremonies of the Uduiringita (a grub) totem. Arunta tribe. (Figs. 173, 174.)

17. Small Pitchi, decorated with designs in ochre. Used during the performance of a sacred ceremony associated with the Unchalka (a grub) totem. Arunta tribe.

18. Small Pitchi, decorated with bands of down. Used during the performance of a sacred ceremony associated with the rain totem. Arunta tribe.

19. Small Pitchi, decorated with designs in ochre. In this a present of food was sent to certain old men by special women after the performance of an initiation ceremony in the Warramunga tribe.

20. Head-dress made out of twigs bound round with human hair string, and decorated with down obtained from the involucre hairs of the plant *Portulaca filifolia*. Arunta tribe.



CEREMONIAL OBJECTS

21. Head-dress made out of twigs bound round with human hair string, and decorated with a design in down and terminal tufts of emu feathers. Used during a ceremony associated with the wind totem. Warramunga tribe.

22-25. Four head-dresses of a low conical form, decorated with designs in plant down. Used during the performance of a sacred ceremony associated with the Tjudia (deaf adder) totem. Warramunga tribe.

26, 27. Two head-dresses made out of "paper bark" (*McAlpinia decaudendron*), and ornamented with a design in down. Used during the performance of sacred ceremonies. Arunta tribe.

28-34. Seven head-dresses, with large wooden slabs. The latter are decorated with designs in red, white, and black. Each slab is covered first with red ochre, and then, except along certain lines or bands, which in two cases are coloured black, the whole of the surface is covered with a mass of dots of white pipeclay. Each slab is worn at the apex of the head-dress, into which it is fastened, while the wearer dances. Used in connexion with a rain ceremony. Arunta tribe.

35, 36. Two wooden slabs decorated with designs in down. Used in connexion with sacred ceremonies. Anula tribe.

37. Wooden slab decorated with wavy design drawn in black on a red ground. Used during the performance of a ceremony associated with a snake totem. The slab was broken across the back of a performer at the close of the ceremony. Umbaia tribe.

38. Wooden slab, with design in black and white. Used during the performance of a ceremony of the wallaby totem. Umbaia tribe.

39-42. Four wooden slabs, with conventional designs in black, representing yams attached to roots. Used in connexion with a sacred ceremony associated with the yam totem. The slabs are worn fixed into the apex of a head-dress made of twigs. Tjingilli tribe.

43, 44. Two head-dresses, consisting of flat discs, made of grass stalks tied round with human hair string, and decorated with designs in down. Used during the performance of a ceremony associated with the yam totem. Tjingilli tribe.

45. Sacred object, with design in white and red down, which is supposed to represent the navel of an ancestral individual and the rays of the sun. Used during the performance of a ceremony associated with the sun totem. Arunta tribe.

46. Object supposed to represent a small wallaby. Used during the performance of a sacred ceremony associated with the black snake totem. Warramunga tribe.

47. Object supposed to represent the scrotum of a kangaroo. Used during the performance of a ceremony associated with the kangaroo totem. Warramunga tribe.

48. Object made out of grass stalks bound round with fur string and ornamented with bird's down. Worn on the head of a man performing a sacred ceremony of the white bat totem. It is supposed to represent the dead, limp body of a man whom the natives are about to eat. Arunta tribe.

49. Object supposed to represent a white cockatoo. Used during the performance of a sacred ceremony associated with the white cockatoo totem. Tjingilli tribe.

50. Object supposed to represent a white cockatoo. Used during the performance of a sacred ceremony, the object of which was that of increasing the number of white cockatoos. Warramunga tribe.

51. Object worn on the head during the performance of a sacred ceremony associated with the Thaballa (or laughing boy) totem. Tjingilli tribe.

52. Stone, called Anjulukuli, carried in the hands of men performing sacred ceremonies in the Umbaia tribe.

53. A mass of red-ochred resin, carried in the hand during the performance of a sacred ceremony in the Anula tribe.

54, 55. Two head ornaments made of grass stalks bound round with fur string and ornamented with designs in pipe-clay and ochre. Each has a terminal tuft of emu feathers. Worn on the head during dancing ceremonies. Anula tribe.

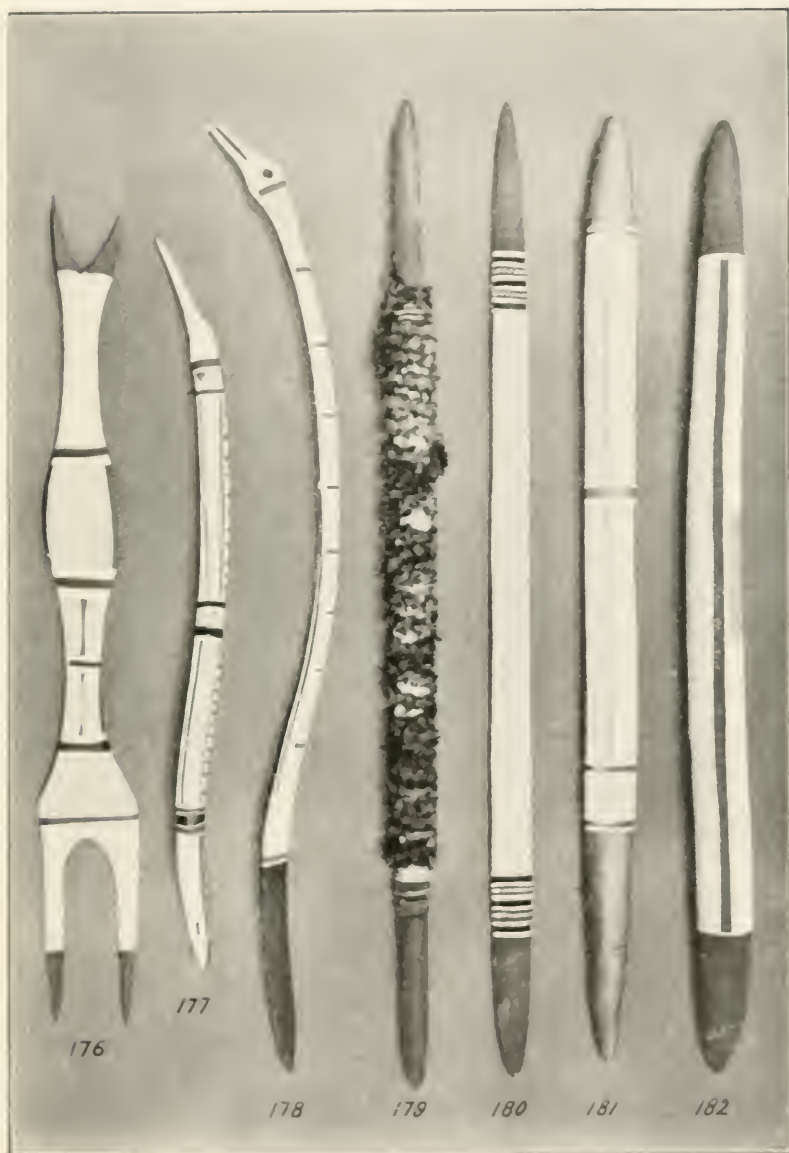
56, 57. Two wands, carried in the hands of men performing the Tjitingalla corroboree. Arunta tribe.

58. A stick, round the end of which a few strands of human hair are wound. Used for smearing human blood on the body of a man who is being decorated for a corroboree. Arunta tribe.

59. Down obtained from a species of *Epaltes*, ready for use. Warramunga tribe.

60. Portions of a plant of the genus *Epaltes*, from which down used during ceremonies is obtained. Warramunga tribe.

60A. Sacred object called Pariltja, worn on the head of the headman of a snake totem group in the Urabunna tribe while performing a ceremony to insure the increase of the snakes. The ceremony consists in his kneeling down, extending his arms and piercing the skin of each with a pointed bone, another man holding up a fold of the skin for this purpose. The bones when not in actual use are greased and wrapped in hair cut from the head of a man of the snake



CEREMONIAL OBJECTS.

totem. Urabunna tribe. Old Peake Station, near Lake Eyre.

Nos. 61-140.

These objects are all used during a special ceremony called Muraian, which is performed by the Kakadu, Umorin, Kulunglutji, and allied tribes that inhabit the country drained by the West, South, and East Alligator Rivers and, probably, also the Coburg Peninsula and country extending to the east of this along the coast line of the Northern Territory.

The objects are divided into two series—Sticks and stones.

Each stick represents a totemic animal or plant. The stones, for the most part, represent either eggs of totemic animals or yams. Their significance is thus radically different from that of the Churinga amongst the Arunta. The latter is associated with the spirit part of a human totemic ancestor, the former with the totemic animal or plant itself.

In most cases the form and design of the stick are purely conventional. The colours used are two shades of red ochre, yellow ochre, white pipeclay, and charcoal. A very characteristic feature of the ornamentation is the fact that, whatever the final design is to be, the stick is first of all covered with a complete coat of red ochre. Fine cross-hatched white lines form a very distinctive feature on all of them. In some cases strings or feathers derived from the Blue Mountain parrakeet are added by way of ornament.

Whilst most are purely conventional, it is interesting to note that this is not true of all, and that a gradation can be traced from what are undoubted zoomorphs to strictly conventionalized forms. Nos. 103-110 are all supposed to represent turtles. In most of them the resemblance is unmistakable, especially in Nos. 104, 108 and 110, in which eyes are present. In 107 the head is decidedly conventionalized; and the shovel-shaped structure seen in 103 is well on its way to lose any close resemblance in shape to the animal it represents.

No. 96 is supposed to represent a fish, the tail being clearly indicated as well as the eye. No. 66, again, represents a native companion, and, with its well-marked beak and attenuated body, it is certainly suggestive of a bird flying, with its legs stretched backwards. In 83 and 75 we have representations of two snakes, whose sinuous movements are suggested by the curvature of the stick. (Figs. 177, 178.) In 83 the head and teeth are clearly indicated. In several other specimens eyes are indicated. In 67 and 97 there is no

mistaking what the pair of, respectively, black and white spots are meant to indicate; but it is only because they are so clearly marked in these examples that the significance of the two yellow spots in 106, each surrounded by its circle of white spots, can be understood. The same is true of the two holes in 72 and 74, which are now purely ornamental, but are modified vestiges of original eyes. In many other cases, such as 62, 67, 72, 74, 84, 86, 88, 97, 99, and 101, the terminal prongs may possibly represent the two jaws of an animal; but, for the most part, these and the remaining specimens are purely conventional. (Figs. 179-182.)

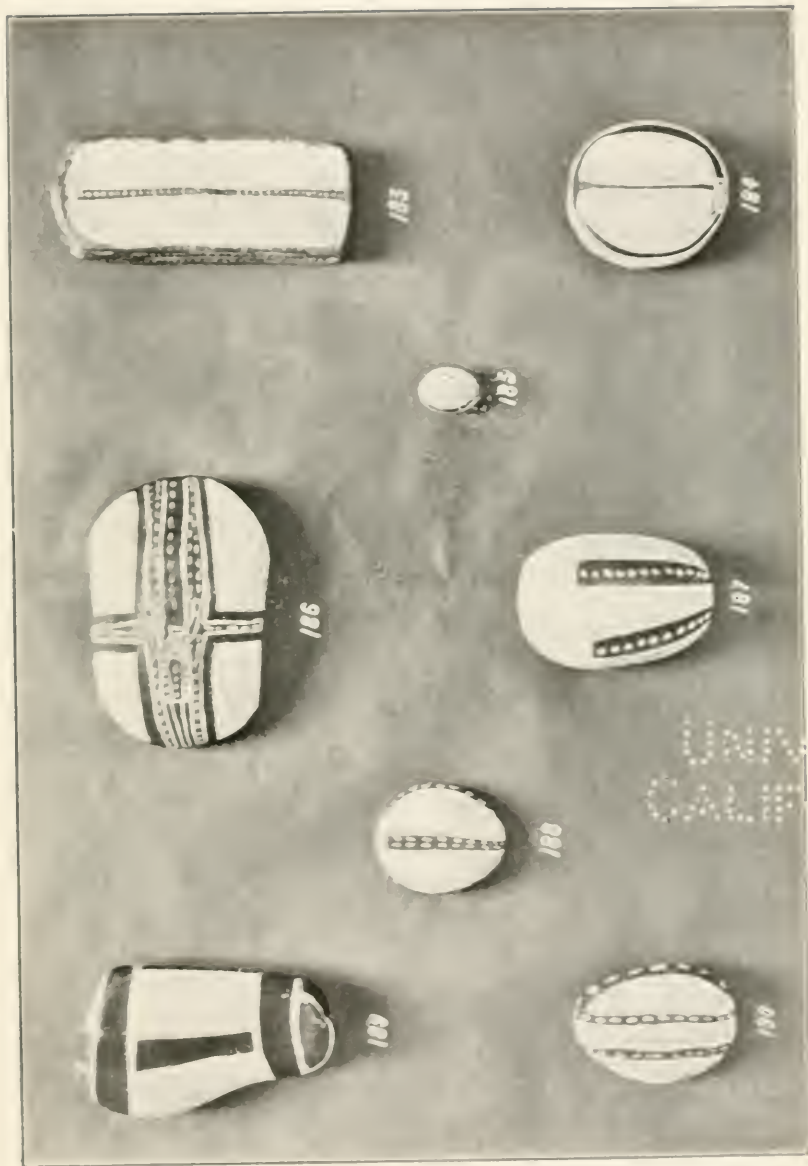
All the stones appear to be naturally shaped, and the designs are purely geometrical, with the exception of 125 (Fig. 186), on which in the centre is a conventional drawing of a turtle.

These sticks and stones are handed down from generation to generation.

The first one to be discovered was the turtle called Muraian. An old ancestor, named Kulbaran, saw something strange moving about in the water. He caught it, and discovered that it was Muraian, and the latter then showed the man how to make the sticks and stones and how to perform the Muraian ceremonies.

Others, such as the emu egg, represented by 133, were found subsequently. This particular one was secured originally by a man named Nauundel, and since then it has passed down through nine generations. The long stick, 140, represents a crocodile, and has descended through a line of nineteen men, the names of whom are all known.

The Muraian consists, first, in the performance of a series of totemic ceremonies, and may only be witnessed and taken part in by elderly men, who, thereafter, receive the status term of Lekerungen. It thus corresponds to the Engwura of the Arunta, and forms the final initiation ceremony. It has, however, a second aspect. At one special time a certain number of sticks and stones are brought on to the ceremonial ground, and after the men have performed various grotesque dances, holding them in their hands, they are placed in a circle on the ground, and all those present dance round and round them, alternately extending and drawing back their arms, and yelling "Brau! Brau!" that is, "Give! Give!" The idea is that the natives are demanding the sacred representatives of the various animals and plants to provide them with these same animals and plants that form their food supply. The Muraian thus serves the double purpose of an initiation and Intichiuma ceremony.



CEREMONIAL OBJECTS

The objects represented are as follow :—

(A) STICKS.

61. Tjungoan, a snake. (Fig. 176.) 62. Jimidanapa, a fish. 64. Tjunara, a yam. 65. Mundebenbo, native turkey. 66. Jimeribunna, native companion. 67. Eribinjori, a female crocodile. 68. Kulekuli, cat-fish. 69. Tjunara, a yam. 70. Murlapa, a yam. 71. Tjunara, a yam. 72. Jimidanapa, a fish. (Fig. 180.) 73. Murlapa, a yam. (Fig. 179.) 74. Mumburungun. 75. Numereji, a snake. (Fig. 177.) 76. Murlapa, a yam. 77. Kimberikara, Barramunda fish. 78. Tjunara, a yam. 79. Tjunara, a yam. 80. A yam. 81. Murlapa, a yam. 82. Jimidanapa, a fish. 83. Numereji, a snake. (Fig. 178.) 84. Brutpeniweir, the jabiru (*Nenodychus asiaticus*). (Fig. 181.) 85. A yam. 86. Eribinjori, a male crocodile. 87. Bararil, a small fish. 88. Mumburungun. 89. Bararil, a small fish. (Fig. 182.) 90. Kimberikara, Barramunda fish. 91. Inmadakeri, roots of the red lily. 92. Tjunara, a yam. 93. Minjiweya, a yam. 94. A yam. 95. Tjunara, a yam. 96. Bararil, a small fish. 97. Jimidanapa, a fish. 98. Kimberikara, Barramunda fish. 99. Karakera, the spur-winged plover. 100. Murlapa, a yam. 101. Brutpeniweir, the jabiru. 102. Bararil, a small fish. 103-110. Kudjalinga, a turtle.

(B) STONES.

111. Allerjiji, egg of the chestnut-breasted duck. 112. Kulijidbo, a yam. 113. Mundebenbo, wild turkey egg. 114. Idabarabara. 115. Kudjalinga, turtle egg. 116. Tjunara, a yam. 117. Mundebenbo, wild turkey egg. 118. Eribinjori, crocodile egg. (Fig. 118.) 119. Kopereipi, emu egg. 120. Jimeribunna, native companion eggs. 121. Kintjilbara, a snake. 122. Kulekuli, cat-fish. (Fig. 190.) 123. Worki, a lily root. 124. Ungamaramilla, a yam. (Fig. 183.) 125. Kudjalinga, turtle egg. (Fig. 186.) 126. Eribinjori, crocodile egg. 127. Kurijeama, "plum." 128. Kudjalinga, turtle egg. 129. Kudjalinga, turtle egg. 130, 131. Kopereipi, emu egg. 132. Jimeribunna, native companion egg. 133. Kopereipi, emu egg. (Fig. 187.) 134. Mundebenbo, native turkey egg. 135. A yam. 136. Mundebenbo, native turkey egg. (Fig. 185.) 137. Purijiliji, lily root. (Fig. 188.) 138. Jimeribunna, native companion egg. 139. Kulori, a yam (Fig. 184.) 140. Eribinjori, crocodile.

Nos. 1-60 were collected and presented by Professor Spencer and Mr. F. J. Gillen; Nos. 61-140 by Professor Spencer.

CEREMONIAL OBJECTS. (Case 57a.)

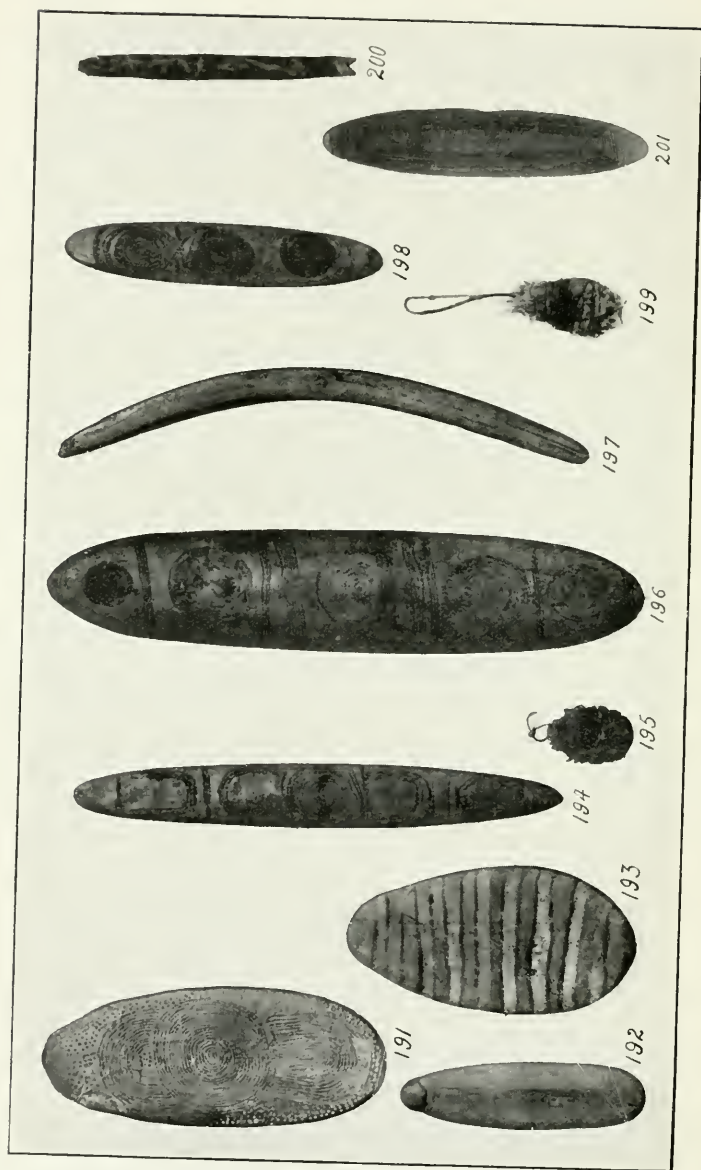
Six decorated slabs from Grootë Island, Gulf of Carpentaria. They were found wrapped up in paper bark amongst the ruins of an old camp. Unfortunately nothing definite is known about them save the fact that no child or lubra is allowed to see them, which indicates that they are only used in the performance of sacred ceremonies, probably during initiation of the young men. They call to mind the sacred objects associated with the Muraian ceremony of the Kakadu tribe, each of which is supposed to represent some totemic animal. The crude zoomorphic drawings on one or two of them lend support to this view. Apart from this they are of great interest as showing a special form of colouration and design suggestive of Bathurst, Melville Island, and Kakadu objects. During the performance of ceremonies the natives probably dance round the larger ones which must evidently be planted in the ground, and carry the smaller ones in their hands. In each there is a series of panels divided off by transverse bands, the former being filled with, for the most part, purely conventional designs, the original meaning of which cannot be told. In No. 1, however, the second and fifth panels from the top show representations of turtles and probably a turtle egg, an animal well known to the natives and important as a food supply. In No. 5, turtles are probably also indicated on the second and third panels, and in No. 6, the sixth and ninth panels have drawings of some hairy but unrecognizable animal. No. 1 measures 7 feet in height by 1 foot in width; No. 2, 6 ft. 8 in. in height by 10 inches in width; No. 3, 6 ft. 10 in. in height by 6 inches in width; No. 4, the smallest, 2 ft. 10 in. in height by 2½ inches in width. Nos. 1 and 2 are simple slabs of heavy wood, probably Eucalyptus; Nos. 3, 4, 5, and 6 are made of light wood. No. 3 is definitely shaped, the upper end possibly representing a head and neck of some animal very much conventionalized, and though crudely cut, suggests an association in form with certain of the Muraian objects. (Case 57.) (Presented by Mr. H. L. White.)

CEREMONIAL OBJECTS. (Case 57b.)

Four ceremonial slabs, sometimes described as dancing boards. The largest measures 10 ft. 2 in. in length, by 4½ inches in width; the smallest, 7 ft. 2 in. in length by 3¾ inches in width. They are used during special ceremonies, but their meaning and the exact way in which they are used is not known. Each of them is decorated on one side only, which has also been red-ochred, with the very characteristic square, grooved design met with nowhere except in West



CEREMONIAL OBJECTS



SACRED STICKS AND STONES.

Australia. From the fact that the design extends along the whole length of each slab, it would appear likely that they are carried and not fixed in the ground. From the Kalgoorlie District, West Australia.

SACRED STICKS AND STONES. (Cases 58 and 59.)

These cases contain a type series of the more important forms of stone and wooden objects associated in various ways with the sacred ceremonies of Australian native tribes. (For explanations see also Cases 60-72.) Different names are given to them in different parts of the continent, and while they vary very much in shape, many of them belong to the class of objects to which the name "bull-roarer" has been commonly applied. The term sacred is used because they are never allowed to be seen, or only on very rare occasions, by the women and children; any infringement of this rule, even if it be an accidental one, being punishable by blinding or death. In probably all parts of Australia flattened sticks, most usually of the form of Nos. 1 and 14, are used in connexion with the ceremonies attendant upon the initiation of the young men, and the loud roaring noise, which is made by rapidly twirling them round at the end of a string, is supposed by women to be the voice of a spirit which has come to take the youths away. In certain of the Central Australian tribes each of these sticks and stones is believed to be associated with the spirit part of an individual (Nos. 9, 14, 15, 16, 21, 23); in other tribes, such as those which formerly inhabited Victoria, no such definite association between the individual and the sacred object is known to have existed; and in such tribes as the Kurnai, the Tundun or bull-roarer was identified with a great ancestor who conducted the ceremony of initiation and made the bull-roarer, and also a smaller one, which represents his wife.

1-4. Sacred sticks, called Miru; from West Australia. This is twirled round at the end of a string so as to make a roaring sound, which is a warning to women and the uninitiated not to go near to the men's camp while sacred ceremonies are in course of performance. During one ceremony, called Kanri, which lasts one month, one or two men are told off daily to swing the Miru. Eaw tribe, Northampton, West Australia. (Fig. 201.)

5. Three stone Churinga of the Warramunga tribe, wrapped in emu feathers.

6, 7, 8. Stone Churingas, called Ananarinia, oval and flat, with a knob of porcupine-grass resin. Warramunga tribe.

9. Stone Churinga belonging to a rat totem. Warramunga tribe. (Fig. 192.)

10, 11, 12. Stone Churingas belonging to the Kulpu or honey totem. Warramunga tribe. (Presented by Professor Spencer and Mr. F. J. Gillen.)

13. Stone Churinga of enrious rounded form, supposed to have been carried by certain mythical ancestral women of the yam totem. Warramunga tribe.

14. Wooden Churinga, wild cat totem. Arunta tribe, Central Australia.

15. Stone Churinga, wild cat totem. Kaitish tribe, Central Australia.

16. Wooden Churinga, a grub totem. Arunta tribe, Central Australia.

17-19. Three stone Churinga, pear-shaped, with a knob of resin, and ornamentation of circles, bands, and spots of white, black, and red. Kaitish tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

20. Sacred stone of the Warramunga tribe, enclosed in emu feathers.

21, 22. Stone Churinga of the Hiaura tribe, Central Australia.

23. Sacred stone of the Worgaia tribe, Central Australia. (Fig. 195.)

24. Sacred wooden stick. Lower Darling River, New South Wales.

25. Bull-roarer, used at initiation. This is the smaller one of two used, and represents the wife of the supernatural being who is supposed by women and children to conduct the ceremony. Chipara tribe, Tweed River, North Queensland. (Fig. 200.) (Presented by Dr. A. W. Howitt.)

26. Chimbali, sacred stick of the Urabunna tribe, used during initiation ceremonies. (Presented by Professor Spencer and Mr. F. J. Gillen.)

27. Bidu Bidu, sacred stick of the Larakia tribe, used during initiation ceremonies. Darwin. (Presented by Professor Spencer.)

28, 29. Kunapippi, sacred sticks of the Nullakun and Mungarai tribes, used during initiation ceremonies. Roper River, Northern Territory. (Presented by Professor Spencer.)

30. A stone which is supposed to represent the egg of an emu, and which, during the performance of sacred ceremonies, the object of which is to insure the increase of the bird, is placed out in the bush, with the idea that the bird, seeing it, will lay eggs. Kaitish tribe, Central Australia.

31-33. Stones, called Churinga Uchitna, supposed to represent the eggs which produce a grub that gives its name to a totem group in the Arunta tribe, Central Australia. These stones are carefully preserved in sacred store-houses, and are only handled by the men of the grub totem when they are performing ceremonies for the purpose of insuring an abundant supply of the grub.

34. A stone, called Bulk. This name was given by the natives of Gippsland to certain round stones which belonged to the wizards or medicine men, the possession of the stone being intimately associated with their magic power. Stones such as this are widely distributed amongst the Australian tribes, and are never allowed to be seen by women and uninitiated men. (Presented by Dr. A. W. Howitt.)

35. Stones which are supposed to represent certain parts of a kangaroo. During a ceremony men are rubbed with these stones, an action which is supposed to assist them in catching the animal. Warramunga tribe, Murchison Range, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

36. Stones, called Atuongara by the Arunta tribe. Every medicine man is supposed to have a number of them distributed through his body, and to project them at will into the body of the patient, in whom they counteract the evil magic from the effects of which he is suffering. When this has been accomplished the stones return into the body of the medicine man.

37. Sacred object in the form of a quartz crystal wrapped in human hair, bird's down, and skin. Dieri tribe, Lake Eyre.

38. Sacred stone, used by rain-makers. Wilpona, South Australia.

39. Sacred stone of the tribe inhabiting the district of Springsbury, Queensland. The stone was carried about wrapped in several layers of opossum skin, and was not allowed to be seen by women and uninitiated men. Obtained from the natives by Mr. S. Bolitho, of Rainworth Station. (Presented by Mr. C. D. Barber.)

40. Stone Churinga, made by a man of the Euro (a kangaroo) totem, and given by him to a man of the "plum-tree" totem to enable the latter to catch Euro. The concentric circles on each side represent the intensions of the animal. The two groups of semicircles represent a male and female Euro. Arunta tribe. (Presented by Professor Spencer and Mr. F. J. Gillen.)

CHURINGA. (Cases 60-72.)

In these cases various forms of Churinga are illustrated. Churinga are sacred stones and sticks which may only be seen by the initiated members of the tribe, and are carefully hidden from the sight of women and the uninitiated. Each individual member of the tribe in which they are found has his or her Churinga, which was carried about before birth by the spirit whose reincarnation the man or woman is supposed to be. In the Arunta and other tribes of Central Australia the ancestors of the tribe are regarded as the transformations of various animals, the name of one of which each human being bears as his or her totemic name, and therefore each Churinga is associated with some totem. They vary considerably in size and shape, and may be either perfectly plain or ornamented with incised patterns, taking the form, most usually, of spirals or series of concentric circles, with minor ornaments in the form of wavy or straight lines. The meaning of the ornamentation is perfectly arbitrary, but in all cases it has reference to the totem of the individual with whom the Churinga is associated. Every individual of the tribe has his or her Churinga, and these are kept hidden away out of sight of women and children in some secret spot, the locality of which is known only to the old men of the totem group. They are carefully stored up in the sacred store place, which is called an *Ertuatulunga*. Before birth the spirit child is supposed to be especially associated with the Churinga, and after birth the Churinga is searched for, and if not found (which it often is by some old man, who, presumably, has provided himself with one taken for the purpose from the store-house), then one is made and placed in the store. At special times they are shown to the younger men after their initiation, when sacred ceremonies commemorative of the tribal ancestors are performed, and it is by means of them that a verbal record is kept of the unwritten history of the tribe. Churinga of this form are characteristic of the Central Australian and probably also of the Western Australian tribes, while the smaller wooden ones are found all over Australia, and are commonly known as "bull-roarers." They are usually made out of Mulga or some hard wood, and are periodically rubbed by the old men with grease and red ochre. The pattern is incised by means of the lower incisor tooth of an opossum.

STONE CHURINGA. (Case 60.)

- 1, 2. Churinga of the emu totem.
3. Churinga of the Luritja tribe, Central Australia.

4. Churinga of the fly totem. Arunta tribe, Central Australia.

5. Churinga (totem not known) of the Arunta tribe, Central Australia.

6. Churinga of the Euro (wallaby) totem. Arunta tribe, Central Australia. (Fig. 191.)

7. Churinga of the Kuninjira totem. Kaitish tribe, Central Australia.

8, 9. Churinga of a grass-seed totem. Kaitish tribe, Central Australia. These two Churinga are decorated with pigments and bird's down, and were thus used during the performance of a sacred ceremony, the object of which was the procuring of a plentiful supply of grass seed, which is eaten by the natives.

10, 11. Churinga (totem not known) of the Arunta tribe, Central Australia.

12, 13. Two stone Churinga from the Kaitish tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

14. Stone Churinga of the "wild cat" totem, decorated with red and white down. Kaitish tribe, Barrow Creek, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

STONE AND WOODEN CHURINGA. (Case 61.)

1. Three stones belonging to men of the emu totem, enclosed in a case of emu feathers, closely similar in shape to one of the Kurdaitcha shoes. Arunta tribe, Central Australia.

2. Three stones, enclosed in emu feathers, belonging to men of the rain totem. One of them, with a knob of resin at the end, is similar in shape to the sacred stones of the Warramunga tribe. Arunta tribe, West Macdonnell Ranges, Central Australia.

3. A very old sacred stone of a man of the dog totem, Luritja tribe, Central Australia.

4. Sacred stone of the Illaura tribe, Central Australia.

5, 6, 7. Three sacred stones of the Warramunga tribe, Central Australia. Each with a knob of resin at one end.

8. Wooden Churinga. Arunta tribe, Central Australia.

9. Stone Churinga of the Witchetty grub totem. Arunta tribe, Central Australia.

10. Stone Churinga of the Witchetty grub totem. Arunta tribe, Central Australia.

11. Stone Churinga wrapped in feathers. Arunta tribe, Central Australia.

Nos. 1, 2, 5, 7, 8, 9, 10, and 11 presented by Professor Spenceer and Mr. F. J. Gillen.)

STONE AND WOODEN CHURINGA. (Case 62.)

A series illustrating the stone and wooden Churinga of the Arunta and Luritja tribes, Central Australia.

1-11. Illustrating wooden Churinga. 1. A caterpillar totem; Arunta tribe. 2. Totem not known; Arunta tribe. 3. Achilpa (*Dasyurus geoffroyi* or "wild cat") totem; Arunta tribe. 4. Euro totem; Arunta tribe. 5-8. Totem not known; Arunta tribe. 9. Snake totem; Arunta tribe. 10, 11. Snake totem; Luritja tribe. All of the rest belong to the Arunta tribe. 12-15. Irpunga or fish totem. 16-23. Totems not known. 24-29. Witchetty grub totem. 30-31. Emu totem. 32-35. Witchetty grub totem. 36-39. Euro totem. 40-44. Witchetty grub totem. 45. Kangaroo totem. 46. Euro totem. 47. Witchetty grub totem. 48-55. Little hawk totem. (Nos. 12-55 presented by Professor Spencer and Mr. F. J. Gillen.)

WOODEN CHURINGA. (Case 63.)

1. Bandicoot totem. 2. White bat totem. 3. Lizard totem. This is a very rare shape, resembling a boomerang, and is a very old one. (Fig. 197.) 4. White bat totem. (Fig. 196.) 5. Water or rain totem. (Fig. 194.) 6. Frog totem. 7, 8. Totem not known. The former has a hole bored through one end so as to allow of its being hung on to some such object as a Nurtunga during the performance of sacred ceremonies. (Fig. 198.) 9. Opossum totem. Human hair string is attached to it, by means of which it is hung on to a Nurtunga. 10. A lizard totem belonging to a Purula man. 11. Totem unknown. 12. A lizard totem belonging to a Purula woman. 13. Totem unknown. 14. A lizard totem belonging to a Kumara man. 15-18. Totem not known. 19. Witchetty grub totem belonging to a Bulthara man. 20. Witchetty grub totem belonging to a male Kumara. 21. Witchetty grub totem belonging to a young Bulthara boy. 22. Dingo totem. All these Churinga are from the Arunta tribe. Nos. 10-21 were collected for the Museum by Mr. E. C. Cowle.

WOODEN CHURINGA. (Case 64.)

1-9. Wooden Churinga of the yam totem. Arunta tribe, Central Australia.

10-13. Wooden Churinga of the honey-ant (Yarumpa) totem. Arunta tribe.

14. Wooden Churinga of the crane (Anjurarra) totem. Arunta tribe.

All these specimens were collected for the Museum by Mr. E. C. Cowle.

WOODEN CHURINGA. (Case 65.)

1-3. Wooden Churinga of a man of the emu (Erlia) totem. Arunta tribe, Central Australia.

4. Wooden Churinga of a man of the Gilka totem. Arunta tribe.

5, 6. Wooden Churinga of a man of the "wild-cat" (Achilpa) totem. Arunta tribe.

7. Wooden Churinga of an ancestor, called Kukaitecha.

8. Wooden Churinga of a man of the Inehillkincha (a bush food on the ranges) totem. Arunta tribe.

All these specimens were collected for the Museum by Mr. E. C. Cowle.

WOODEN CHURINGA. (Case 66.)

1, 2. Wooden Churinga of a man of the kangaroo totem. Arunta tribe, Central Australia.

3-6. Wooden Churinga of a man of the carpet snake (Kunia) totem. Arunta tribe.

7. Wooden Churinga of a man of the dove (*Geopelia tranquilla*) totem. Arunta tribe.

8. Wooden Churinga of a man of the honey-ant (Yarumpa) totem. Arunta tribe.

All these specimens were collected for the Museum by Mr. E. C. Cowle.

STONE AND WOODEN CHURINGA. (Case 67.)

1, 2. Wooden Churinga of a man of the emu (Erlia) totem. Arunta tribe, Central Australia.

3. Wooden Churinga of a man of the Witchetty grub (Uduirringita) totem. Arunta tribe.

4. Stone Churinga representing the liver of a green snake. Arunta tribe.

5, 6. Stone Churinga of a man of the Witchetty grub (Uduirringita) totem. Arunta tribe.

7. Wooden Churinga of a man of the little grub (Unchalka) totem. Arunta tribe.

8-10. Wooden Churinga of a man of the Mulga seed totem. Arunta tribe.

11. Wooden Churinga of a man of the crane (Anjuarra) totem. Arunta tribe.

12. Stone Churinga of a man of a grass seed totem. Arunta tribe.

13. Stone Churinga representing the liver of an emu. Arunta tribe.

All these specimens were collected for the Museum by Mr. E. C. Cowle.

STONE CHURINGA. (Case 68.)

1-7. Blackened stone Churinga of the Euro (Arunga) totem. Arunta tribe, Central Australia.

8, 9. Stone Churinga of the Hakea flower (Unjiamba) totem. Arunta tribe.

10, 11. Stone Churinga of a rat (Illuta) totem. 10. Arunta tribe. 11. Kaitish tribe, Barrow Creek, Central Australia.

12. Stone Churinga of the water (Quatcha) totem. Arunta tribe.

13, 14. Wooden Churinga of the rain totem. Kaitish tribe.

15-17. Small stone Churinga of a fish (Wunta) totem. Arunta tribe.

18. Woolen Churinga of the bell bird totem. Luritja tribe, Central Australia.

19. Stone Churinga of a grass seed (Injirra) totem. Arunta tribe.

20. Stone Churinga of the fire (Ura) totem.

(Nos. 1-18 presented by Professor Spencer and Mr. F. J. Gillen.)

STONE CHURINGA. (Case 69.)

1-7. Set of stone Churinga of men of the Hakea flower (Unjiamba) totem. Arunta tribe, Central Australia. (Fig. 193.)

8, 9. Stone Churinga of men of the honey-ant (Yarumpa) totem. Arunta tribe.

10. Stone Churinga of a man of a snake totem. Arunta tribe.

(Nos. 1-7 presented by Professor Spencer and Mr. F. J. Gillen. 8, 9, 10 collected for the Museum by Mr. E. C. Cowle.)

STONE AND WOODEN CHURINGA. (Case 70.)

1. Wooden Churinga of the lizard (Echunpa) totem. Arunta tribe, Central Australia.

2. Stone Churinga of the eaglehawk (Irritcha) totem. Arunta tribe.

3. Stone Churinga of the little hawk (Ullakupera) totem. Arunta tribe.

4. Stone Churinga of the emu (*Erlia*) totem. Arunta tribe.

5. Wooden Churinga of the honey-ant (*Yarumpa*) totem. Kaitish tribe, Barrow Creek, Central Australia.

6. Small stone Churinga of the fly (*Amunga*) totem. Arunta tribe.

7, 8. Stone Churinga of the Irriakura totem. Edible-bulb of *Cyperus columbas*. Arunta tribe.

9. Wooden Churinga of the Witchetty grub (*Uchirrigita*) totem. Arunta tribe.

10. Stone Churinga of the Yam totem. Worgaia tribe, Tennant Creek, Central Australia.

11. Stone Churinga of the wren totem. Arunta tribe.

12-14. Stone Churinga of a grass seed (*Arawinnia*) totem. Kaitish tribe.

15, 16. Stone Churinga of the Witchetty grub (*Uchirrigita*) totem. Arunta tribe.

17. Boomerang-shaped wooden Churinga. From a native grave, 10 miles north of the Barrier Ranges, New South Wales.

18. Wooden Churinga. Found on a native grave at Crystal Brook, South Australia.

19, 20. Wooden Churinga of the Tjingilli tribe, Powell Creek, Central Australia.

21. Wooden Churinga ornamented with an incised design of squares. North-West Australia.

(Nos. 1-16, 19, 20 presented by Professor Spencer and Mr. F. J. Gillen.)

WOODEN CHURINGA. (Case 71.)

1. Wooden Churinga of the Umbaia tribe, Wunamburn Lagoon, Northern Territory.

2-6. Wooden Churinga of the Guanji tribe, Macarthur River, Northern Territory.

(Nos. 1-6 presented by Professor Spencer and Mr. F. J. Gillen.)

WOODEN CHURINGA. (Case 72.)

1-3. Wooden Churinga of a Paungga man of the emu (*Erlia*) totem. Arunta tribe, Central Australia.

4. Wooden Churinga of a Parula woman of the wagtail (*Tier-tjirra-tjirra*) totem. Arunta tribe.

5. Wooden Churinga of a wood swallow (*Tarlpuingi*) totem. Arunta tribe.

6. Wooden Churinga of a Kunarra man of the Edumpu totem. Arunta tribe.

7. Wooden Churinga of a Purula man of a sandhill rat (Mulla) totem. Arunta tribe.

8. Wooden Churinga of a stone standing up (Ulalla) totem. Arunta tribe.

9. Wooden Churinga of a Purula man of the green snake (Talra-Kulpilla) totem. Arunta tribe.

10, 11. Wooden Churinga. Totem unknown. Arunta tribe.

12. Wooden Churinga of a Panunga man of the carpet snake (Kunia) totem. Arunta tribe.

13-15. Wooden Churinga of a Purula man of a yam totem. Arunta tribe.

16. Wooden Churinga of a man of an ant (Mantu-pailka) totem. Arunta tribe.

17, 18. Wooden Churinga. Arunta tribe.

19. Wooden Churinga of a Panunga man of a grass tree (*Xanthorrhæa Thorntonii*) totem. Arunta tribe.

20. Wooden Churinga of a man of the fire (Ura) totem. Arunta tribe.

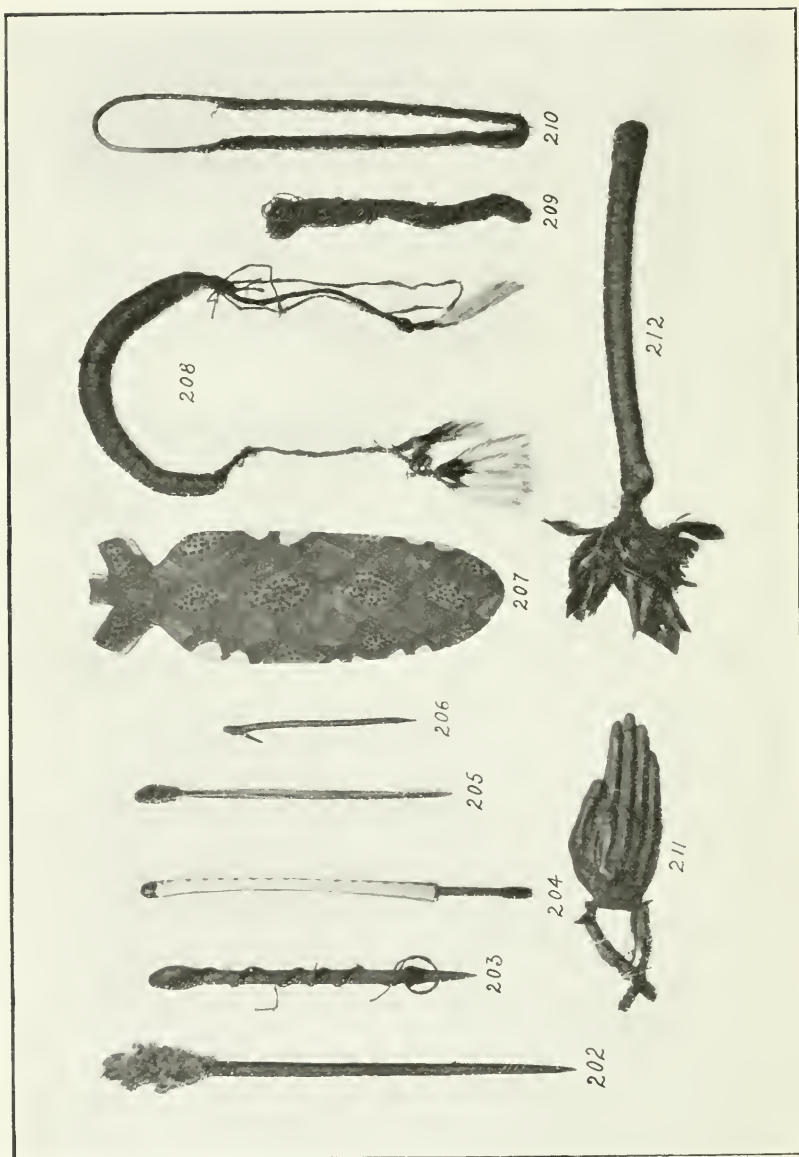
21. Wooden Churinga of an Appungerta man of a bandicoot totem (*Perameles sp.*). Arunta tribe.

All these specimens were collected for the Museum by Mr. E. C. Cowle.

MAGIC. (Cases 73-77.)

Like that of all savage peoples, the life of the Australian aborigine is largely influenced by magic. If he desires to help himself to procure food, to avoid or injure an enemy, he has recourse to magic. If his food supply fails he attributes this to the evil magic of an enemy, which can only be overcome by means of the exercise of stronger counter magic. In this matter, like all other savages, he never dreams of putting his belief to anything like experimental test; what his father and ancestors believed that he implicitly believes; in fact, so strong is the influence of long-established custom that he dare not do otherwise. The consequence is that his life is really governed on all sides by magic of one form or another. If he has eaten too much when food is abundant, then the medicine man must exorcise the evil magic which is causing him pain, and his last moments, if he be conscious, are spent in indicating to the medicine man the individual by means of whose evil magic he is being killed.

When fighting he will, if possible, carry with him some magic object, such as hair cut from a dead warrior, which will both give him accuracy of aim and, at the same time, destroy that of his enemy. If, on the other hand, he believes that the spear which has wounded him, however



slightly, has been "sung" or endowed with evil magic, then, so strong is his belief in the efficacy of this, that he will simply lie down and die unless some wizard, strong in magic power, can counteract the evil influence which has entered his body.

The natural consequence is that amongst the various Australian tribes there are numberless objects of magic, which we may roughly divide into two groups—(1) Those which are used with the main idea of helping their possessor, as, for example, in the case of the sacred "bull-roarer," or lock of hair cut from a dead man; and (2) those, such as pointing sticks and bones, which are solely used to injure or kill an enemy.

In some tribes the power of dealing in magic matters is, to a large extent, confined to a special class of men, who are spoken of as medicine men, or wizards; but in others this is not at all the case, and the ordinary individual deals freely in magic, though some men, and these by no means of necessity the medicine men whose special function is the curing of disease, are regarded as being more skilled than others.

It is naturally difficult, in fact impossible, to draw any hard-and-fast line between, on the one hand, what are described as sacred objects, and, on the other, objects of magic. We have, however, speaking generally, confined the former term to objects which are used in sacred ceremonies, such as those concerned with initiation or the totems, and the latter to those used by individuals for the purpose of directly benefiting themselves, usually at the expense of some other individual, or of injuring or killing the latter.

VARIOUS ARTICLES OF MAGIC. (Case 73.)

1, 2. Necklets made from the opossum fur string giraffe and head band of a dead man. After the mourning ceremony has been performed, these are taken to pieces and remade into necklets, to which the name, *Okikimulana irrulkua-kinua*, is given. The first of these two words is the ordinary name applied to the necklets; the second is compounded of the words *irra* (he), *ulkuā* (grave), *kinua* (from), which will serve to show that the ornaments are supposed to be in some way endowed with the attributes of the dead man. These necklets must be given to some member of the tribe who belongs to the half of the tribe to which the dead man's mother belonged, and he must also be a member of some other local group. When the necklets are ready, the men of the group to whom they are to be presented are summoned to the camp, where, out of sight of the women, the

son or younger brother of the dead man places them round the necks of the recipients. From the northern part of Arunta tribe, Central Australia. (2 presented by Professor Spencer.)

3, 4, and 5 are different examples of the same object, in which there is but one horseshoe-shaped coil, the two ends of which are tied together with opossum fur string, decorated with the tail-tips of the rabbit-kangaroo. These forms are made amongst the western groups of the Arunta tribe, Central Australia, and may be decorated with red ochre or with bands of bird's down. They are supposed to endow the wearer with strength and accuracy of aim, and to deprive his enemy of the same. (Fig. 208.)

6. Left human femur (leg-bone), with the ends broken off, decorated with red ochre and wound round with human hair string. At one end is fixed a bunch of owl feathers. It is carried in the hand during a fight, and is supposed to be full of magic power, which is of benefit to the carrier and most harmful to his enemy. (Fig. 212.)

7. A waist girdle made from the hair cut from the head of a dead man. It is a most sacred object, and, except when in actual use, is carried about wrapped up in bark with human hair string wound round. The hair is cut off by the sons or, if there be none of these, by the dead man's younger brothers or their sons. While the hair is being cut off, the women and children retire out of sight. The sons and younger brothers of the dead man make it into a girdle, to which the oldest son has the first right. The girdle must always descend to a man who is tribally younger than the dead man. It is called Kirra-ulkna, is supposed to be endowed with the attributes of the dead man, and is worn on such occasions as a Kurdaitcha expedition. The spirit of the dead man is supposed to be resident in the tail of the rabbit-kangaroo, which projects from one end. Arunta tribe, Central Australia.

8. Bretta turdi Kurnai, or dead man's hand. In the Kurnai tribe, soon after the death one or both hands were cut off and dried, and a string of opossum hair was attached, so that the hand could be hung round the neck and worn in contact with the skin under the left arm. It was carried by parent or child, brother or sister. It was supposed that on the approach of danger the hand would pinch or push the wearer, and as soon as it did so it was taken and held up in front of the face, and the question put, "Which way are they coming?" If it remained at rest, the question was again put, facing in another direction, until at last the hand vibrated, thus indicating the direction in which the

danger lay. The vibrations were said to be so great that it "would almost come over to the holder." On the appearance of the Aurora Australis the natives imagined that the world was about to be burnt up, and the hand was held up and moved backwards and forwards while the wearer constantly repeated the words, "Go away!" This specimen was found suspended round the neck of a woman who was shot during a fight with her tribe on the station of Angus McMillan, Gippsland, Victoria. (Presented by Mr. Wm. Lynch.) (Fig. 211.)

9. A lock of hair cut from the head of a dead man, enclosed in bark and fur string, and worn as a charm. It is supposed to act as a counter charm to evil magic, and during fights to endow its possessor with accuracy of aim. No woman or child may see it. Arunta tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

10. A lock of hair, probably cut from the head of a dead man, enclosed in bark and wrapped round with 413 yards of human hair string. (Presented by Mr. J. A. Panton.)

VARIOUS ARTICLES OF MAGIC. (Case 74.)

1. A "trumpet," called Ulpirra, used by natives in Central Australia for the purposes of charming women. A fire is made, and then the man inhales some of the smoke through the trumpet, singing as he does so. That night, while the corroboree dance is held, he blows through the instrument, and then the special woman feels the influence of the charmed trumpet. Arunta tribe, Central Australia.

2. A small bull-roarer, called Nama-twinna, used for charming a woman who belongs to a distant group. A few men retire at night to a secluded spot and chant songs of amorous phrases addressed to the woman. At daylight the man who desires to secure her swings the bull-roarer; the humming sound is carried to the ears of the woman, and has the power to cause her to come to the man. The name is derived from nama (grass) and twinna (to strike), because, when used, the instrument is made to strike the ground. Arunta tribe, Central Australia.

3, 3A. A shell ornament, called Lonka-Lonka, often worn by men suspended from the waist. It is used for charming women. A man who is desirous of securing some women charms it by singing over it an invitation to the lightning to come and dwell in the shell. At night he wears it suspended from his waist, and then, while he dances, the woman, and she alone, sees the lightning flashing from the shell,

and is attracted to the man. In the case of these three instruments (Nos. 1, 2, 3), the woman charmed must belong to the group into which the man may lawfully marry, and if she be assigned or married to another man, a fight always ensues.

4. Three specimens of a string knout, which is made by the Warramunga tribe, and endowed with magic power. One at least of these is possessed by almost every man of the Arunta and other Central Australian tribes, and is used to keep women in subjection, its stroke being supposed to result in very serious injury. The knout is also cracked like a whip in the direction of any one whom it is desired to injure, the evil influence being carried to the victim through the air. The implement is made by the Warramunga tribe, and is used by Arunta, Ilpirra, and Kaitish men over a large area of Central Australia. (Fig. 209.)

5. A knout, similar in its use to No. 4, found amongst the Bingongina tribe, Central Australia. (Fig. 210.)

6. A charm, called Tikovina, worn during fights by the natives on the Herbert River, Queensland. The natives say that in times past a powerful being, named Kohin, came to the Herbert River in the form of a carpet snake from the Milky Way, which he said was full of fish. He brought two of these Tikovina with him, and instructed the men how to wear them, which they do by means of a string round the neck, the charm hanging down between the shoulders. It insures accuracy of aim with the spear and immunity from injury. It is further said that the head men of the tribe have to eat human flesh every three years, or else they are unable to commune with Kohin. (Presented by Mr. John Gaggin.) (Fig. 207.)

7, 8. Case of bark and object of magic, called Tchintu. The latter was wrapped in the former, and consists of a knob of porcupine-grass resin with two incisor teeth of a rat and a hair string, covered with down, about 2 feet long. Tchintu is the name for the sun, and this object is supposed to contain the sun's heat. If placed in the track of any individual the heat follows him up, and sooner or later he will be seized by a violent fever, which will burn him up. Wyingurri tribe, Central Australia.

9. Okincha lanina irrulknakinna, necklet made from the hair string girdle and neck-bands of a dead man. Worn on an avenging party. The spirit of the dead man is supposed to be resident, for the time being, in the dog's tail. Arunta tribe.

10. Chilara, a head-band made of whiplashed fur string, worn by men to charm women. Arunta tribe.

11. Object of magic, called Kipitja, worn through the hole in the nasal septum by medicine men in the Warramunga tribe. It is supposed to be full of magic connected with a mythic snake, from whom the medicine men receive their power. Warramunga tribe.

(Nos. 7-11 presented by Professor Springer and Mr. F. J. Gillen.)

12. Periperipu, a bull-roarer used as a charm. North Queensland.

VARIOUS ARTICLES OF MAGIC. (Case 75.)

In many Australian tribes the hair of the head is wholly or partly removed immediately after death, and used for magic purposes. In the Arunta and Unmatjera tribes in Central Australia only the hair from the top of the head is removed; in the Kaitish tribe the whiskers are also cut off and made into a special magic implement, called Akuntilia; farther north, in the Warramunga, only the whiskers are used; but in the Tjingilli and west from them, right down, apparently, to the coast of the Gulf of Carpentaria, both hair and beard are preserved. In each case the hair is made into some such sacred object as the Kirra-nlkna (Arunta), Wailia-wailia and Akuntilia (Kaitish), Tana (Warramunga), Tjantimmi (Tjingilli), &c., which is carried by the avenger of the dead man. Such hair is always kept, because it is supposed to be endowed with the attributes of the dead man, and, therefore, to give special power to its possessor. In the Warramunga tribe a girl sometimes carries a Tana containing hair cut from the whiskers of a dead Naminji (mother's brother). This man has the right to allot her, and the Tana indicates that she is the property of some man, and acts also as a charm against the advances of other men.

1-7. Tana. Warramunga tribe, Tennant Creek, Central Australia. 5 is carried by a young woman to signify betrothal.

8. Akuntilia. Kaitish tribe, Barrow Creek, Central Australia.

9, 10. Wailia-wailia. Kaitish tribe, Barrow Creek, Central Australia.

11. Irrnknakinna, in a cover of emu feathers, with the head-bands of the dead man. Arunta tribe, Central Australia.

12. Burumburu, dead man's arm-bone, wrapped in paper-bark, ornamented with a design of yellow and black spots. This bone was taken out of the ground after having been broken and buried according to certain burial rites of the Warramunga tribe. It had previously been taken out on an avenging expedition.

13. Head-bands, containing hair of a dead man. Arunta tribe, Central Australia.

(Nos. 1-13 presented by Professor Spencer and Mr. F. J. Gillen.)

POINTING STICKS AND BONES. (Case 76.)

These are implements of magic which are used for the purpose of injuring an enemy. Each one consists of a piece of bone or wood, one end being pointed, and the other often tipped with a small mass of resin. They may be ornamented with marks made by a fire-stick or with bird's down or with rings of white, red, yellow, and black pigment, while, occasionally, they may be rubbed all over with grease and charcoal. In the Central Australian tribes, from amongst whom most of the specimens have come, a very common method of using them is as follows:—The man who has made one goes along to some unfrequented spot, and mutters over it such curses as the following: "May your heart be torn asunder! May your backbone and ribs be rent asunder! May your throat and head be split open!" That is what is called "singing the stick," which results in endowing it with evil magic. He then leaves it at the spot for a few days, after which he brings it at dark to the camp where his enemy is sitting, and from some little distance points it at the latter, at the same time repeating the curses. After this has been done the victim is supposed to sicken and die, unless his life be saved by the counter magic of a "medicine man."

123. Various forms of pointing sticks, used by the Arunta, Ilpirra, Kaitish, and other Central Australian tribes. The rounded ones are commonly called *Irna*, and the more flattened ones, *Takula*. (Figs. 202, 203.)

24. A double pointing stick, peculiar to the locality of "Running Waters," on the Finke River, Central Australia. When used, two men stand facing one another. One holds the string, while the other, grasping the instrument in both hands, points it, with a series of jerks, between his legs, in the direction of the man whom it is desired to injure. The effect is supposed to be the discharge of blood from different organs of the body, resulting in a wasting death. Arunta tribe. (Presented by Professor Spencer and Mr. F. J. Gillen.)



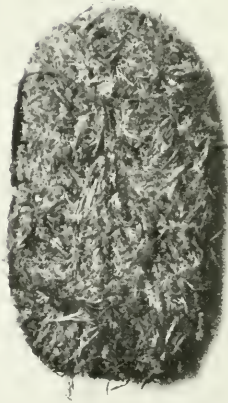
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KURDAITCHA SHOES.

25. A special form carried by the medicine man who accompanies a man going as a Kurdaitcha to kill an enemy (for explanation, see case of Kurdaitcha shoes). The pointing bone is carried inside a hollow bone, which is worn as a nose-bone. The form is called Injilla, and is placed by the medicine man under the tongue of the victim after the latter has been speared, and has the power of rendering him oblivious of everything that has occurred. (Fig. 204.)

26-31. Pointing bones, or Injilla, of the Arunta tribe, Central Australia. (Fig. 205.)

32, 33. Ullinka, pointing sticks supposed to be used by spirit individuals for inserting in the bodies of men. Arunta tribe, Central Australia. (Fig. 206.)

34. Special form of pointing apparatus, called Ungakura. It consists of a strand of human hair string, to which is attached at one end a pair of claws of the eaglehawk, and at the other five pointing bones. Arunta tribe, Central Australia.

35. Pointing stick, Wanga, with burnt design. Mt. Margaret, Western Australia. (Presented by Mr. W. N. Cannon.)

36. Pointing stone, Nakitja. This is an opaline quartz spear-head that has been "sung" by members of a distant tribe, and so endowed with evil magic. It is used by the Kaitish tribe, Central Australia.

37. Two pointing sticks wrapped in bark. Kaitish tribe, Central Australia.

38. Six pointing bones, Tjingilli tribe, with knobs of resin covered with white down. Tjingilli tribe, Central Australia.

39. Six short pointing bones. Arunta tribe, Macarthur River, Northern Territory.

40, 41. Flat pointing bones. Arunta tribe, Central Australia.

42. Double pointing bone. Urabunna tribe, Lake Eyre, Central Australia.

(Nos. 33, 36-39, 42 presented by Professor Spencer and Mr. F. J. Gillen.)

SHOES, &c., WORN DURING A KURDAITCHA. (Case 77.)

A Kurdaitcha man is one who has either been formally selected, or goes out on his own initiative, wearing emu-feather shoes, to kill an individual who is accused of having injured some one by magic. He may or may not be accompanied by a medicine man. If he be, then the latter also wears the shoes, which are attached to the ankle and leg by human hair string and decorated with bird's down fastened

on by human blood. The bodies of the men are also decorated with down and charcoal, and the hair tied up in the manner shown in the photograph. No man may "go Kurdaitcha" who has not submitted to having the great toe of one foot dislocated. In doing this the ball of the toe is applied to a hot stone until it is supposed to be softened, when it is suddenly pulled out violently to the side, and thus dislocated. Each shoe consists of a pad of emu feathers, which are made to adhere by continuous prodding with a bone needle, so that they become closely intertwined. The upper part consists of human hair string plaited into a net, in which, at one side, is a hole for the dislocated toe to pass through. The Kurdaitcha man carries one or more of the sacred stones or wooden Churinga (bull-roarers), which, while creeping upon his enemy, he carries between his teeth. The possession of this sacred Churinga both gives him accuracy of aim and prevents his enemy from discovering his presence. After being wounded the enemy faints, and the medicine man comes up and heals the wound by magic, often inserting into it a small lizard, which is supposed to suck up the blood. When the man revives he is oblivious of all that has happened, and returns to camp, where, soon afterwards, he is supposed to sicken and die. It is commonly stated that the object of the shoes is to conceal the track of the wearer, but, inasmuch as an overturned stone or a blade of grass pressed down is sufficient to reveal to a native not only the fact that some one has been walking, but also the direction in which he has walked, the most that the shoes can do is to prevent its being known exactly who has made the track. At the present day the Kurdaitcha is probably a matter of make-belief, and the equivalent of a bogey-man.

1. Under surface of a shoe. Arunta tribe, Central Australia. (Fig. 215.)

2. Upper surface of a shoe. Arunta tribe, Central Australia.

3. Pair of shoes tied together with human hair string. They are often used like this for carrying about small sacred objects, such, for example, as the stone knife used during the initiation ceremonies. Arunta tribe.

4, 5. Upper surfaces of a pair of shoes. One of them is decorated as it is when being used, and contains a small wooden Churinga and the ball of human hair string used to tie the shoe with. (Figs. 213, 216.)

6. Small stone Churinga, carried between the teeth.

All the above are from the Arunta tribe, Central Australia.

7. Kurdaitcha shoes used by the Kaitish tribe, which inhabits country to the north of the Arunta tribe. The front

part of the foot is enclosed by a covering of emu feathers, no network of human hair string being employed. (Fig. 214.)

8. Pad of emu feathers used in connexion with the Kurdaiteha ceremony. The exact use of this is not known. Arunta tribe, Central Australia. (Presented by Professor Spencer.)

9. Under and upper surfaces of a pair of shoes, consisting of a flat pad of emu feathers edged with a narrow network of bandicoot-wool string. Wilgena district, South Australia. Presented by Mr. Bernard Hall.

10. Noose, or Neerum, used for strangling an enemy. It consists of a needle made from the fibula of a kangaroo and a rope 2 feet 6 inches long. The cord is formed of string of seven strands, which are 5 feet long. One end of the rope is fixed to the bone by kangaroo tendon; the other is made into a loop, also fixed by tendon. It is said that the bone is slid under the victim's neck while asleep, put through the loop, and quickly drawn tight. The body is then carried away to a secluded spot, where the "kidney fat" can be extracted. Wotjoballuk tribe, Victoria.

STONE KNIVES USED IN CERTAIN INITIATION CEREMONIES. (Case 78.)

1. Knife with resin haft, in a Kurdaiteha shoe made of emu feathers and human hair string netting. The carrying of the knives and other small objects used during sacred ceremonies in these shoes is apparently a precaution for keeping them from being seen by women and children, to whom the shoes are also forbidden. Arunta tribe, Central Australia. (For explanation and specimens of Kurdaiteha shoes, see Case No. 77.)

2. Knife with resin haft, wrapped in human hair string. According to tradition this is one of the old stone knives, called Lalira, used in the far past when the performance of the rite during which it was used was first introduced. Arunta tribe.

3. Circular stone knife, known as a Kunda stone, and used for circumcision. From Western Australia. (Presented by Professor Spencer.)

4. Decorated knife with yellow-ochred resin haft, and sheath made of paper-bark and whitened fur string. Used in ceremonies connected with women, and also in the circumcision ceremony. Warramunga tribe, Tennant Creek, Central Australia. (Presented by Professor Spencer and Mr. E. J. Gillen.)

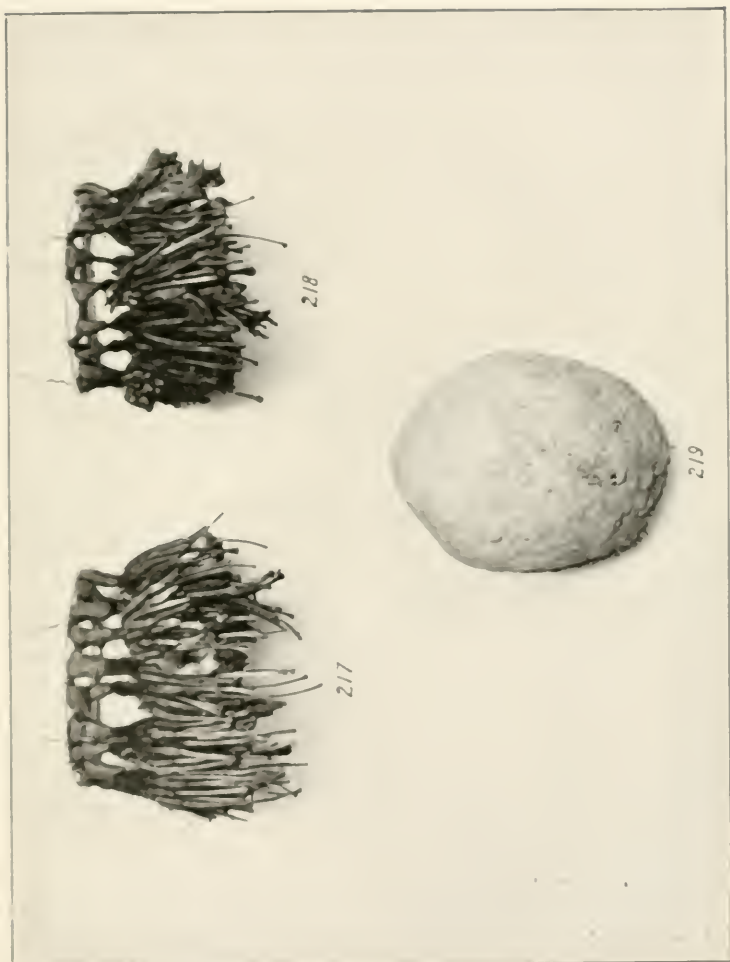
5. Decorated knife, and sheath made of paper-bark and whitened fur string. Warramunga tribe, Central Australia. (Presented by Professor Spencer and Mr. F. J. Gillen.)

6. Decorated knife, and sheath made of paper-bark and whitened fur string. Used in the circumcision ceremony. Arunta tribe, Central Australia.

MOURNING AND BURIAL. (Case 79.)

Amongst the Australian aborigines it is a widely-spread custom for the hair of the head to be plastered over with pipeclay or kaolin in token of mourning. In some tribes individual locks of hair are thus enclosed, causing the head to appear as if it were ornamented with a lot of white sausages, the upper part of the face and the body being also smeared over with white. In other tribes the whole of the hair is enclosed in a dense mass of gypsum, forming what is called a "Kopi," specimens of which are seen in the lower part of the case. It is said that this, which weighs 10 or 11 pounds, is renewed at intervals of a week or two, and the old "Kopis," as they are removed, are placed on the grave, their number testifying to a certain extent to the esteem in which the dead individual was held.

The two chaplets seen in the upper part of the case are worn by the widow of a dead man, or mother of a dead child, on the occasion of the performance of a ceremony called "Urpmilchima" in the Arunta and Ilpirra tribes, Central Australia. In these tribes the bodies of the mourners are, as usual, plastered over with pipeclay; the women in the camp cut themselves with knives, beat themselves with sticks, and give vent to the strange, weird wail which all day and night is to be heard arising from a camp in which a death has taken place. After the lapse of perhaps twelve or eighteen months the final ceremony, which indicates that the period of mourning is at an end, is carried out at the grave. The chief mourner, widow or mother, has made a chaplet, called "Chimurilia," out of little groups of bones attached by poreupine-grass resin to one of the ordinary fur string head-rings. Her head and the upper part of her body are again bedaubed with pipeclay, and the chaplet is worn so that the bones hang down over her face and nearly conceal this from view. In addition, she wears little tufts of the bright-coloured feathers of a cockatoo. At the grave, amidst loud lamentations, the men and women cut their bodies in token of grief, the chaplet is torn to pieces and buried in the grave, and the twigs which covered the latter are trampled upon and broken in pieces. The name of the ceremony,



MOURNING CHAPLETS, ETC.

"Urpmilchima," means "breaking the twigs in pieces"; and after this the spirit, which has hitherto haunted the old camp, is supposed to return to its ancestral hunting grounds, where it associates with other spirits; though at times it will return to visit, but not annoy, its living relatives, who, by placing the broken chaplet and coloured feathers in the grave, have signified that they have properly mourned for the dead.

1. Chaplet ornamented with the red beads of the bean tree (*Erythrina vespertilio*). From the Ipirra tribe, Central Australia. (Fig. 218.)

2, 3. Chaplets (Chimurilia) of the Arunta tribe, Central Australia. (Fig. 217.)

4. Chaplet which has been broken up and placed in the grave.

5. Fur string rings, worn by the women mourners and then buried in the grave.

6, 7. Small pitchis in which the Chimurilia are carried.

(Nos. 1-7 presented by Professor Spencer and Mr. F. J. Gillen.)

8. Parcel of bones of a child, wrapped in paper-bark and fur string. Carried by the mother. Ord and Nigri Rivers, Kimberley district.

9, 10, 11. Widow's head-dress or "Kopi," made of gypsum. Murray River. (Fig. 219.)

12. Widow's head-dress or "Kopi" made of gypsum. Tilpa, New South Wales. (Presented by Mr. J. Mungovan.)

13. Armlets, worn by women of the Kakadu and allied tribes during the Morlil or mourning ceremony. They are made out of string manufactured from fibres of the bark of the Banyan tree. They are worn on the arm, just above the elbow, and are called Kundama by the Kakadu. (Presented by Professor Spencer.)

14. An exceptionally large widow's cap or "Kopi." Kallara, Darling River, New South Wales. (Presented by Mr. H. S. Officer.)

15-22. Oval grave stones made of gypsum. 15-17. (Presented by Mr. Graham Officer.) 18-21. Tongo Lake, New South Wales. (Presented by Messrs. H. S. Officer and A. S. Kenyon.) 22. Tilpa, New South Wales. (Presented by Mr. Mungovan.)

MOURNING AND BURIAL. (Case 80.)

In the Binbinga, Anula, Mara and other tribes inhabiting the country on the west coast of the Gulf of Carpentaria the ceremonies connected with mourning and burial are of an elaborate description.

Soon after death the greater part of the flesh is removed from the bones and eaten by certain individuals. The bones are placed on a platform in a tree, and allowed to remain there until they are dry and clean, when they are taken down and wrapped in paper-bark. The parcel is placed in a forked branch of a tree, which stands upright in the middle of a small cleared space margined by a little circular mound, which is incomplete at one side.

The greater part of the bones are wrapped in one parcel (1), but the arm-bones are kept apart and enclosed in fur or hair string (2, 3, 4), and at a later date are handed over to men whose duty it then is to avenge the death.

The forked stick is placed close to the camp of the father and mother of the dead person, and there is always some one watching over it. A little fire is kept burning day and night within the raised circle, and is never allowed to go out. Finally, the bones are taken down and, after an elaborate ceremony, during which performances connected with the totem of the dead person are enacted, they are placed in a kind of coffin, called Lurkun or Lurgun, made out of a hollow branch decorated with a design belonging to the totem. This coffin is then carried away, and left in the branches of a tree overhanging a waterhole in which water lilies, a staple food of the natives, grow. Here it remains undisturbed until, perhaps, it tumbles into the water, or is carried away by a flood.

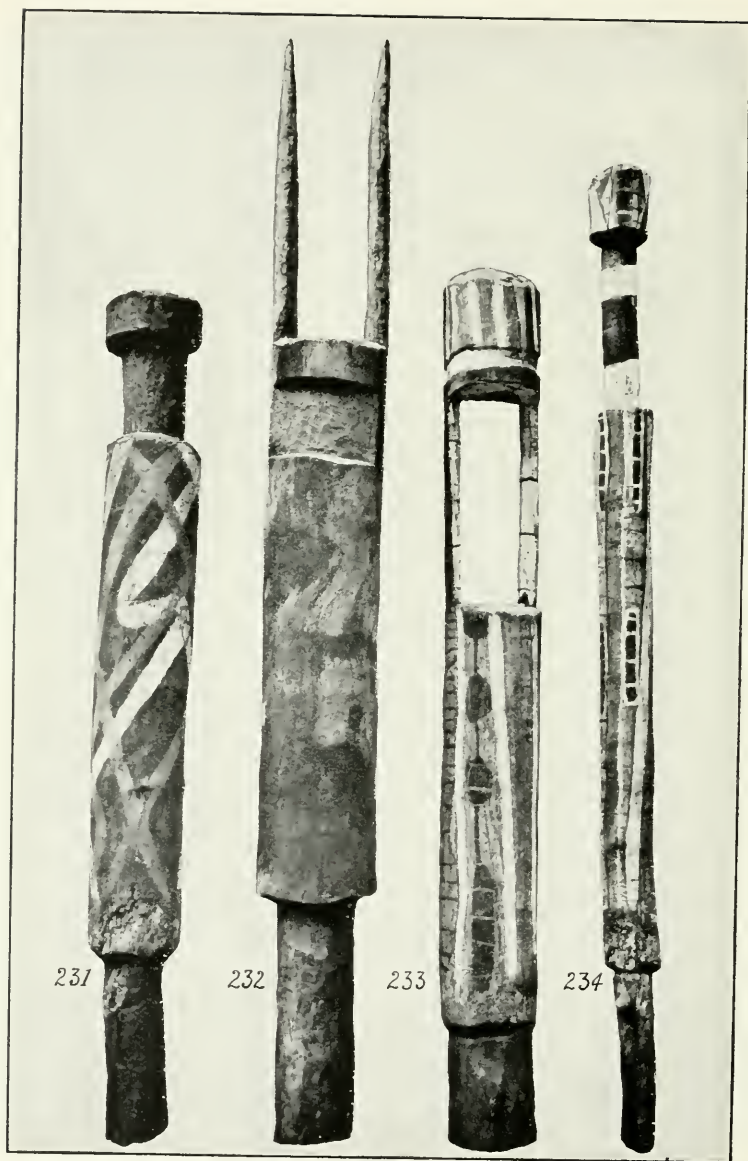
The parcel of bones in this case was obtained in a camp of Binbinga natives on the banks of the Macarthur River, and the coffin was made by the mother's brothers.

1. Parcel of bones wrapped in paper-bark.
2. Arm-bone of the same individual, wrapped in fur string.
3. Arm-bone, wrapped in fur string and enclosed in paper-bark.
4. Arm-bone, wrapped in human hair string.
5. Coffin, decorated with design of the Turtle totem.
6. Smaller coffin for the bones of a young person.
7. Small coffin, wrapped in paper-bark (bark of *Melaleuca leucodendron*).
8. A large coffin, or Lurkun. Boroloola, Macarthur River, Northern Territory.

(Nos. 1-7 presented by Professor Spencer and Mr. F. J. Gillen. No. 8 presented by Sergeant Dempsey.)



TWO GRAVES MELVILLE ISLAND



GRAVE POSTS.

MELVILLE AND BATHURST ISLANDS GRAVES.

(Case 81.)

On Melville and Bathurst Islands the dead are placed in the ground, a small mound covered with sheets of paper-bark at first marking the spot. The grass and herbage are cleared away, and after the lapse of some months grave-posts are erected. The total number of posts does not appear to exceed twelve or thirteen, and they may be erected at intervals of time. Each of them is decorated with a crude design in red and yellow ochre, charcoal, and pipeclay. They vary in height from 2 or 3 to 12 feet, with a diameter of from 9 to 12 inches. They are crudely carved, in such a way that alternating broad and narrow bands are often present at the upper end, which may be pierced by a rectangular space, leaving only a thin slab on each side to support the upper part, or it may terminate in two elongate prongs. On every grave there are usually one or more posts notably taller than the rest, and on these bark baskets are placed which have been used by the native. Until the total number of posts has been erected the grave is looked after and, whenever visited, the grass and herbage on and immediately around it are cleared away. When fresh posts are erected special dances are performed around the grave, but when once—it may be after the lapse of some years—the posts are complete no further trouble is taken, and as time passes by they rot away or perish in bush fires.

These posts were removed from two graves placed side by side in the interior of Melville Island. The posts of one grave have been repainted by the natives to show the original scheme of decoration. The photograph shows the two graves in their original surroundings and condition. (Plates 25, 26.)

GRAVE-POST. (Case 82.)

This incised design was made by a man of the Yarra tribe, Victoria, as a grave-post to be placed over the grave of an aboriginal named Bungelin. It was not known what meaning was attached to the several figures; but it was supposed by the aboriginals of the Yarra River tribe that the men represented in the upper part of the drawing are friends, who have been appointed to investigate the cause of the death of Bungelin. The figures of the birds and mammals (emus, lizard, wombat, and kangaroos) are said to indicate that he did not die for lack of food; and the strange and somewhat obscure forms below the cross band are those of Murups, or spirits who have caused the death of the aboriginal by their wicked enchantments.

OBJECTS USED BY THE NATIVES OF MELVILLE AND BATHURST ISLANDS. (Case 83.)

1-19. Baskets made out of the bark of a gum tree (*Eucalyptus tetradonta*). The bark is stripped from the tree during the wet season in slabs of various lengths and widths, according to the size of the basket desired. Each slab is folded upon itself, and the edges are sewn together with split cane. One-half of the margin of the mouth is strengthened with interlaced split cane, and the fragile handle is always attached to the middle of this side. The baskets are decorated with designs drawn in red and yellow ochre and white pipe-clay. They are bold, crude, very characteristic of the natives of Melville and Bathurst Islands, and quite unlike any met with on the mainland. In some cases, as in Nos. 1 and 6, they are the same on both sides, but in others, as Nos. 2, 3, and 8, those of the two sides are quite different. They are carried about by the women, and are used for holding water and food supplies, such as yams. (Figs. 120-122.)

20-25. Baskets made of palm leaves. The edges of the leaf are folded over so as to form two sides of the basket; the folds are stitched together with split cane. The stem, which is retained attached to the leaf, is bent over, as seen on the right side of No. 21, and twisted up outside the folds of the leaf. It is there kept in place by a stitching of split cane. A very simple design is usually painted on the outside surface, and in No. 22 a pendant made from a flattened-out tip of a dog's tail has been added by way of ornament. Small specimens, such as No. 25, are used by children, and also for carrying such things as little lumps of ochre. (Figs. 124, 125, 126, 128.)

26 and 27 are examples of baskets roughly made for temporary use. The material employed is paper-bark derived from *Melaleuca leucodendron*. (Figs. 123, 127.)

28-48. Armlets, used by women during mourning ceremonies on Bathurst and Melville Islands. They are made of the bark of a gum tree, and may be divided into two groups, in one of which the fold is a single one, whilst in the other it is double. The first of these is the less common type, and is represented by Nos. 29, 30, and 35; the remaining specimens are all made of a double fold. In most cases where there is a free edge, and in all where two free edges come together, as along one side of the double-fold specimens, split cane is stitched round to prevent fraying of the bark or to join the edges together. The bark is cut in such a way that, when it is folded over to form the armlet, projections of various shapes and sizes are formed on what



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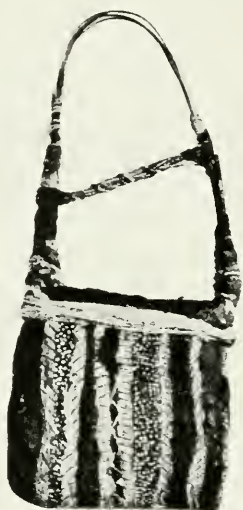


222



223

MOURNING ARMLETS.



224



225



226



227

is the outer surface of the latter when it is worn. Various other ornamentations may be added, as seen in the specimens. Abrus seeds stuck into lumps of beeswax are frequently employed, and the general scheme of design and colouration of the bark is closely similar to that of the baskets. In rare cases, as in Nos. 29 and 35, the bark is unpainted. It is possible that in some the ornamentation may be suggestive of definite objects; that, for example, in Nos. 31 and 37 calls to mind the rigging of a ship. In some cases, as in Nos. 31 and 37, 42 and 44, they are made in pairs, but this is somewhat infrequent. They vary much in size, some of them being much too large for a woman's arm; whilst others, such as No. 48, are very small and worn by young girls. When in use they are held against the side of the body, with the arm through them, bent at the elbow. Carrying them in this way, with gum-tree twigs in their hands, the women and girls solemnly dance round the grave-posts during the final mourning ceremonies. (Figs. 220-227.)

49-72 are representative series of armlets, together with two discs. The smaller armlets, such as Nos. 59, 61, 63, 65, and 67 are worn on ordinary occasions by the women. From these which are actually worn, a series can be traced, gradually increasing in size until the form seen in Nos. 52, 54, and 56 is reached. In the case of these, the object is just as much out of proportion to the size of the arm as is that of the bark armlet (No. 32). There is, however, a complete gradation between the larger and the smaller ones, and the former have undoubtedly been developed out of the latter, size being added to give importance. These large ones and the two discs, Nos. 58 and 66, are carried in the hand by women when they dance round the grave-posts during the mourning ceremonies. Each armlet is made of a larger or smaller number of concentric rings of cane, wound round and round with human hair string. On the inner side the rings are bound together with a stitching of split cane, as is well seen in No. 50. Tassels of various forms, ornamented with small discs, lumps of Abrus seeds and bunches of feathers, are added by way of ornament; and in No. 54 the external margin is decorated with tufts of human hair coloured alternately red and white. Attention may be drawn to the very characteristic scheme of decoration in Nos. 52, 56, and 58. (Figs. 228-230.)

73, 74, 75, 76, and 77 are examples of armlets made of split cane, worn by men.

78-84 are objects used during the initiation ceremony of the Melville Island natives.

78 and 79 are necklets, called Marungwum, worn by the youth, called Watjinyerti, who is passing through the ceremony for the second time. (Figs. 238, 240.)

80 is a belt, called Olturuma, worn by the initiate while he is out in the bush after the performance of the ceremony. (Figs. 235, 236.)

81 is a necklet worn by the mother of the Watjinyerti youth so long as he wears the Marungwum. (Fig. 237.)

82 and 83 are chaplets ornamented with dogs' tail-tips, worn by young girls, called Mikinyertunga, who take part in the initiation ceremony. (Fig. 241.)

84 is a ball of birds' feathers, which the Mikinyertunga girl bites with her teeth while performing a special dance during the ceremony. (Fig. 239.)

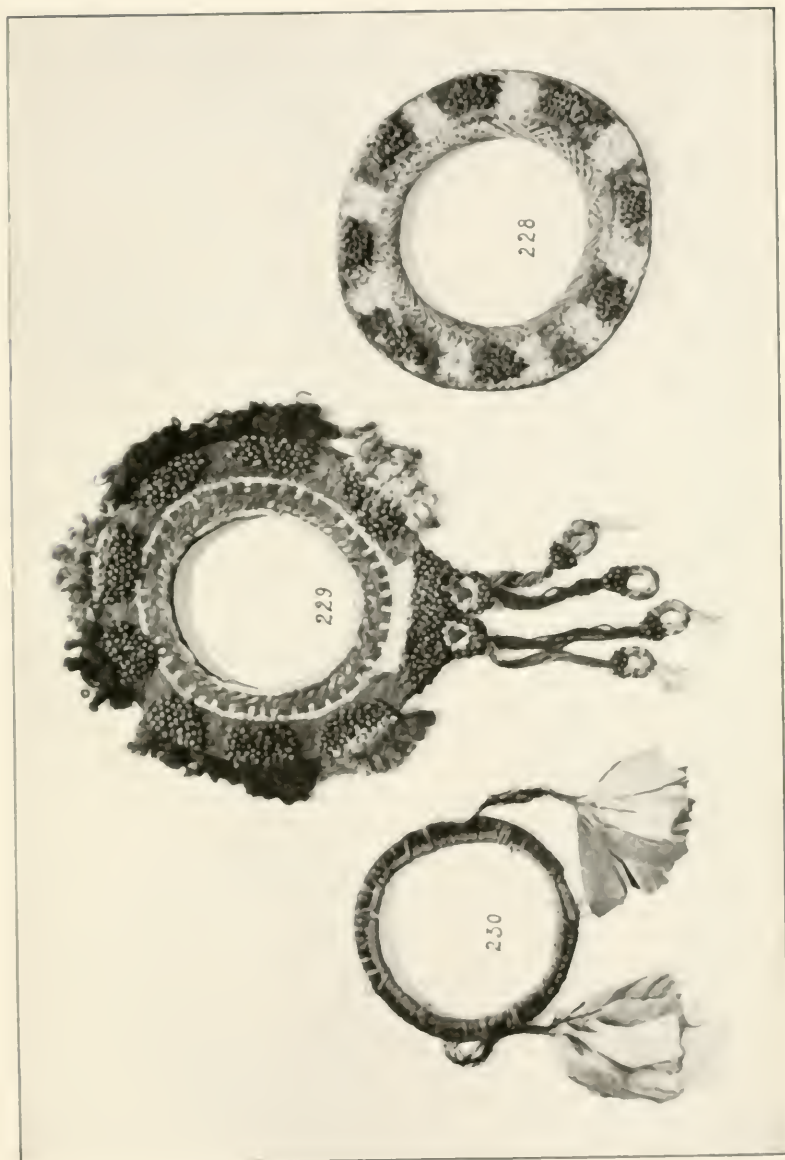
85-90. Ornaments of various forms made of lumps of beeswax covered with bright red Abrus seeds. They are worn round the neck or suspended from the head by string made from human hair or some vegetable fibre, such as the inner bark of the Banyan tree.

(All the objects in this case were collected and presented by Professor Spencer.)

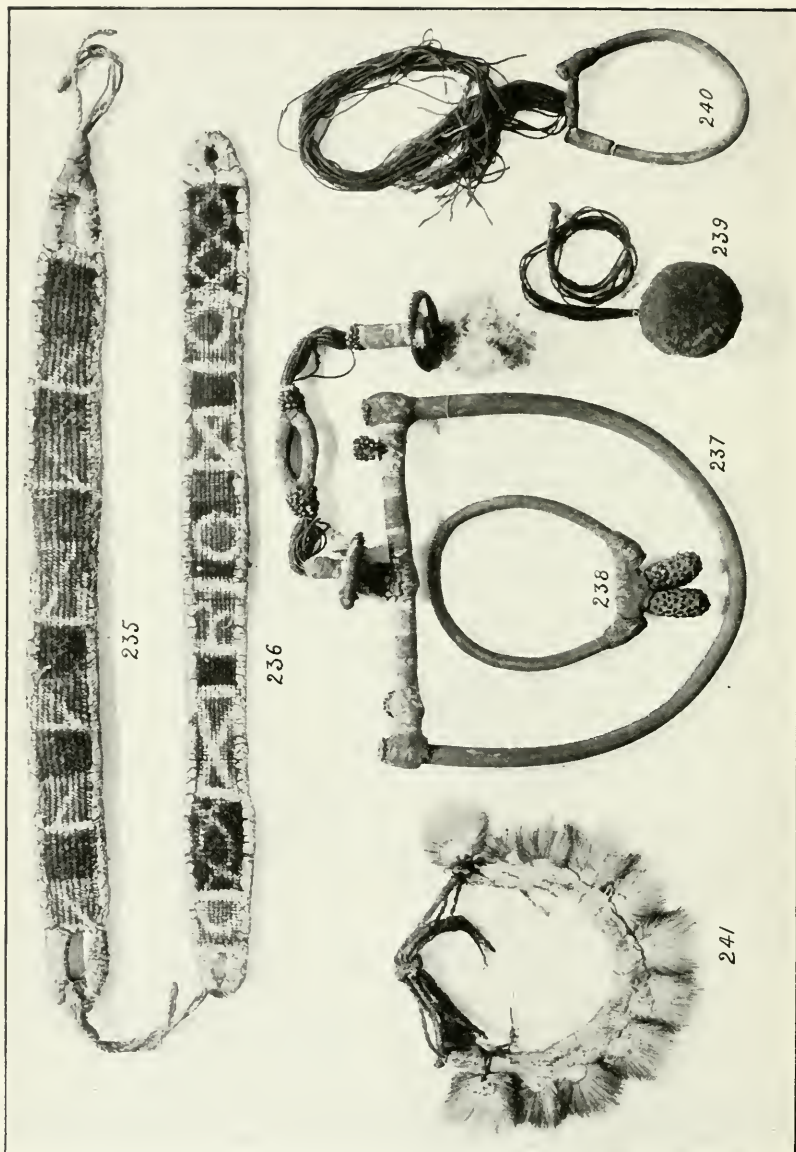
NATIVE BARK DRAWINGS. (Case 84.)

Drawings such as these are made by natives of the Kakadu, Umorin, Iwaidji, and other tribes living in the vicinity of the Alligator River in the Northern Territory. They are done either on the sheets of gum-tree bark that form the walls of their mia-mias, or on the roofs and walls of their rock-shelters, and represent animals with which they are in daily contact, and mythical gnomes and spirits, of whom they stand in dread. In all cases the drawing is more or less conventionalized. In some the external form only is represented, but in others the internal anatomy is suggested. The backbone is usually drawn, and also the alimentary canal, while masses of red ochre represent flesh. The materials used are sheets of bark, red ochre, and white pipeclay, with, more rarely, yellow ochre and charcoal. It will be noticed that, in almost all cases, whether the animal be drawn in side or front view, both eyes are indicated. There is very considerable difference amongst the natives in regard to the making of these drawings, one or two men in each camp or local group being recognised as distinctly more capable than their fellows.

1. Koperipi, an emu. The backbone is shown on the left side, as also the intestine and the masses of flesh on the breast and pelvic region.



MOURNING RINGS



INITIATION OBJECTS.



BARK DRAWING.

2. Jurlurnperai, a female kangaroo that lives in jungles. The V-shaped lines on a white background behind the shoulder represent ribs.

3. Kopercipi, an emu. The details of the internal anatomy of the bird are clearly indicated. Along the back runs the backbone. In the neck the oesophagus is shown with flesh on the under surface. The shoulder girdle and muscles on it are represented by cross-bars of red ochre. Behind these the alimentary canal is drawn, with the heart above it. On the former there is, first of all, a bilobed structure representing the liver, with the gall-bladder indicated by a black mark. A little further back is the gizzard, followed by the intestine. On the under surface, just below the neck, there is a solid mass of red ochre representing the "tar," or, as the natives said, "the place where it talked." The three characteristic toes are clearly indicated.

4. A gnome or sprite amongst the Geimbio tribe. It is one of a number to which the general term, Gnormo, is applied. It is supposed to fly about during the day or on moonlight nights, never during the dark. It rests amongst Bamboo trees, hanging on by means of a special rope structure made from Banyan-tree bark. This is represented by the white lines. Only medicine men can see this Gnormo, who itself is also one. It does no harm to the natives; on the contrary, if it sees one of the latter ill, it tells a medicine man to go and make him well. (Fig. 242.)

5. A gnome or sprite, called Warraguk, of the Geimbio tribe. It walks about during the day time on the look-out for other Gnormos. It is only about 4 feet high, and lives amongst Bamboo trees, hanging on to them like a bat, of the general form of which the drawing is suggestive.

6. A fish, called Nupadaitba. The backbone is represented running down the middle, and, below it, the alimentary canal.

7. A gnome or sprite, called Nangintain by the Geimbio tribe. It lives in caves amongst the hills, and is very mischievous, roaming about during the night time, and capturing the Iwaiyu, or spirit part of boys who venture away from the camp, or make too much noise in the latter. If it does so, a medicine man, taking with him a Numereji, a special snake to which he owes his magic powers, goes in search of the Nangintain. After finding the latter, he brings the snake out from under his arm and shows it to the sprite, who becomes very frightened and says, "Take back the Iwaiyu!" The medicine man does so, hurries back to camp, and replaces it in the boy's body. The projection behind the head represents two very long ears, and the two white marks under this

indicate the dorsal spines of two vertebral bodies that are much longer than in human beings. When it comes out from the cave, it shakes its ears, making a noise like a rushing wind.

8. Three snakes. The two on the right side are death adders, called Narennā, in which the characteristic spiked tail is indicated. The one on the left is a mythic one, called Gnabadaua.

9. Jimmeriburra, or native companion. The native is supposed to have just thrown his double-pronged spear by means of a spear thrower. Around his neck he carries a dilly bag. In this, as in all the drawings in which human figures are represented, there is a great disproportion in the size of the latter, as compared with the animals.

10. The right-hand figure represents a Monmorlpa, a large rat; the middle one, a fish, called Nupadaitba; and the left-hand one, a Kupulapuli, or white egret, the plume of which is indicated. A native is capturing the fish with one of the four-pronged spears used for this purpose.

11. Two drawings representing an adult and a young Numereji, a mythic snake that figures largely in traditions of the Kakadu tribe, and is especially associated with medicine men, who alone can see it.

12. Madjiborla, an "old man" kangaroo. The native has been out searching for honeycomb or "sugar bag" that he is carrying in the dilly bag hung from his neck. On the way back to camp he comes across the kangaroo, which he is attacking with his Jiboru, or spear.

13. The upper figure represents a Pewi, or pigmy goose (*Nettapus pulchellus*); the middle, Aperlul, or small Barramunda fish. The lower two figures are drawings of hands. The hand is first placed on the wood, and powdered pipeclay blown over so as to produce a stencil. After this the red ochre outline is added.

14. The upper figure represents a Kudjalinga, or fresh-water turtle. The zig-zag line down the centre indicates the alimentary canal. The middle figure is a fish, called Kunaitja, a mullet; the lower is a cat-fish (*Copidoglanis*), in which the very characteristic barbels around the mouth are clearly indicated.

15. This refers to a tradition connected with a mythical individual, called Bubba Peibi. He is a little, squat man who is supposed to walk about in water-holes at night time, catching fish. As he wanders about, he talks to himself, saying "Bi, Brr; Bi, Brr" (with a long roll on the "r"). He carries a dilly bag, or Meilla, on his head, in which he

places the fish; and in the drawing is represented carrying seven of them on a long grass stalk that passes through their gills.

16. The left figure represents a fresh-water turtle; and the right a small fish, called Burra-neippa.

17. The upper figure represents a small fish, called Jimi-dauapa; the lower, a young cat-fish.

18. A small crocodile (*Crocodilus johnstoni*).

19. An Ungangir, or small crocodile (*Crocodilus johnstoni*).

20. Urdpipa, a fresh-water turtle. The drawing represents an outside view of the animal, with the exception of four white patches, two at the front and two at the hind end, which represent Paloma, or fat.

21. A Gnorno or spirit, called Yungwalia, who lives in caves amongst the hills, and is supposed to visit the grave of a dead man. He puts both hands on the dead man, presses down, and shakes him to make him get up. After he has gone away, other spirits, called Norminada, come up and make corroborces. He is shown carrying a bunch of feathers that he uses during dances in his left hand, and a Kadimango, or club, in his right; the latter in case he should have to fight a hostile Yungwalia belonging to another country.

22. A Gnorno or spirit, called Annenan, which lives amongst the hills in the country of the Geimbio tribe. He only walks about at night time, searching for dead natives to eat them. At the back of his head he carries a projection, called Marigik, which he can creak and rattle so that all in camp can hear him. The tail-like structure represents lightning, which the natives often see at night time along the tops of the hills. On his wrists, elbows, knees, and ankles he carries knobbed structures, which are supposed to be the bones of dead natives placed there by himself.

23. An eaglehawk, or Nungortji. On the wings the feathers are represented.

24. Scene representing a kangaroo hunt. From left to right the figures represent a man running, with a spear and spear thrower; a woman, with a digging stick, and a dilly bag hung from her head; a man who has just thrown a stone-headed spear; two men running, drawn upside down; the kangaroo; and on the extreme right a man hitting it with a club.

25. An old male pied goose, or Kurnembo. The characteristic bony protuberance on the head is clearly indicated.

26. The left-hand figure represents a small fish called Mumeremia; and the right, a Pewi, or pigmy goose. In the alimentary canal the œsophagus is shown, followed by the gizzard, and then by the intestine, which is supposed to be distended with food. Behind this is a mass of Paloma, or fat.

27. The upper figure represents a Madjiborla, or large kangaroo. In the head the brain and tongue are shown; then follow the œsophagus and heart, with the curved diaphragm and coiled intestines. Above the latter is the backbone, and above this again is a mass of Tjali, or flesh.

28. A Kulekuli, or cat-fish (*Copidoglanis*), with the barbels, or Tjari, round the mouth.

29. A Naburpungenyi, or black kangaroo (*Macropus bernardus*), which lives amongst the ranges. The diaphragm is shown, with the heart and two lungs immediately in front of it. The colour of this kangaroo (*Macropus bernardus*) is quite distinct from that of any other, and is expressed by the use of a body-ground of black charcoal.

30. Represents an Eyenbumbo, or eaglehawk. In this an attempt is made to show the wings, or Yaiyilla, extended with the feathers on.

31. The two figures on the left represent Wonjella, and the one on the right a Murali. All these are salt-water fish.

32. The left-hand figure represents a Miniorko, or bandicoot; and the right-hand one an Erlaungerla, or echidna. (Fig. 243.)

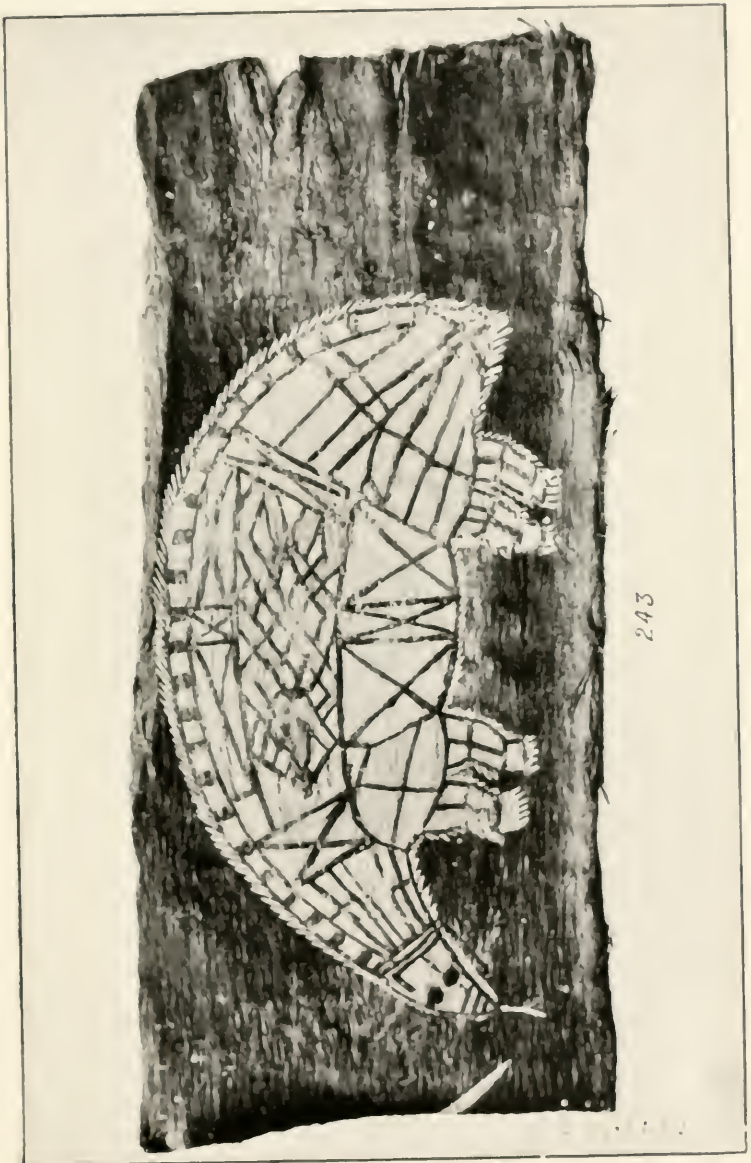
33. The upper figure on the left represents a rat, called Imberilbumbu; the one underneath, a small fish, called Kunbaritja. Those at the right end represent two other fishes, called Tjameru and Pulauerbulla.

34. A large cat-fish, or Kulekuli (*Copidoglanis*).

35. A Barramunda fish, or Kimberikara (*Scleropages leichhardti*).

36. A large crocodile, or Eribinjori (*Crocodilus porosus*). Some of the internal anatomy is shown, such as the œsophagus, heart, and liver. On the left side of the body the scales on the undersurface are shown, and on the same side the crest on the tail.

37. A large crocodile, or Eribinjori (*Crocodilus porosus*). The two jaws are followed by the eyes, then the tongue, neck, and chest. The backbone runs along the right side of the body and tail, on which also the upper crest is represented. There are no details of internal anatomy.



BARK DRAWING.

38. The figure on the left represents a diver with its long neck. The alimentary canal is clearly shown, and the object in the middle is supposed to be a fish that it has eaten. The bird is being speared by a native, who has just discharged the spear from a spear thrower. The smaller drawing represents a Pewi, or pigmy goose.

(All these drawings were collected and presented by Professor Spencer.)

NATIVE DRAWINGS. (Case 85.)

These were made by natives of the Kakadu and Kulunglutji tribes living in the vicinity of the Alligator River in the Northern Territory. They represent animals on which the aboriginals feed and mythical gnomes or sprites (see 84). It will be noticed in all cases that whilst the drawings of the heads of the animals are fairly good, those of the gnomes, who are supposed to be in most cases human in form, with at times animal traits, are very indifferent.

1. Fresh-water crocodile (*Crocodylus johnstoni*), called Yinganga. The snout is very elongate, and the internal anatomy not well shown; the vertebral column is clearly shown in the tail, and probably indicated by the line of black blocks on the left side of the trunk; the spines on the tail are also shown.

2. A lily-eating gnome or sprite, called Mungknmboibait in the Kakadu tribe. The head is very conventional, with one large spot in the centre of the face, and a projection on each side, possibly intended to represent bushy hair. The drawing on the right side of the trunk represents the backbone; the median line with lateral lines running the length of the trunk, though suggestive of backbone and ribs, is probably merely decorative, the same scheme being continued down each leg. The feet have no toes. It carries in each hand a bag to hold the lilies.

3. A gnome or sprite, called Kugarung in the Kakadu tribe, that is supposed to spend its time searching for "honey-bags" (the comb of the wild bee). The head is animal in form, suggestive of a kangaroo. There are no eyes, but it is evidently supposed to be looking up, with one hand in the position of shading its eyes while searching in the trees for the bees' nests. The backbone is represented, but no other internal structure, and it has no fingers or toes.

4. A gnome or sprite, called Warraguk in the Kulunglutji tribe. This also eats honey-bags. The head is very conventional, the two large yellow patches outlined with red perhaps representing the eyes, and the white line between

them the nose. Possibly the median drawing in the trunk is the backbone; on each side of it is a design with white diamond-shaped patches on the right, and others with crossed red lines on the left. A membrane suggestive of that of the flying fox runs along each side of the body from the tips of the fingers to those of the toes. The arms and legs are fully extended.

5. An "old man" kangaroo, called Jeruober in the Kakadu tribe. It is decidedly well drawn, with the proportionate length of fore and hind feet clearly shown, as also the strong tail. The backbone is indicated, the curved side lines running away from it possibly representing ribs; but if so, they are in the wrong place. Two eyes are shown, and the heart and lungs above the diaphragm.

6. The palmated or pied goose (*Anseranus semipalmata*), called Kurnembo by the Kakadu tribe. The characteristic hard, horny crest on the head is well shown, and internally the gizzard. The outline of the hands and feet is first made by placing them flat on the bark and then squirting powdered pipeclay over them from the mouth, so that they are silhouetted. In addition to this, the drawings are decorated with red lines and white dots, and on the feet the balls of the toes are well indicated.

7. The salt-water turtle (*Chelone midas*), called Barnjil by the Kakadu. The beak, seen sideways, is well marked, and the whole drawing gives a fair idea of the appearance of the animal in the water. The internal anatomy is indicated.

8. The black kangaroo (*Macropus bernardus*), called Naburpungenyi by the Kakadu. The colour of this is so striking that the natives always employ black when representing it in their drawings. The heart and lungs are drawn in front of the diaphragm; on the hind foot there is a single large toe.

9. A gnome or sprite, called Mununlimbur by the Kulung-lntji tribe. It is supposed to roam about in search of honey-bags. The face is very conventional; there are two eyes, no mouth, and very bushy hair. The backbone is shown, and the leg-bones are indicated; there is no attempt to depict the internal anatomy, but the trunk is decorated with a design that differs on each side of the third line. There is an extra finger on each hand, but no toes are drawn. A bag to carry the honey is hung from each elbow.

10. The white ibis (*Ibis molucca*), called Gobolba by the Kakadu tribe. The bills are distinctive; the head shows

two eyes in side view; the backbone and tracheal tube leading to the lung are drawn in the long neck, and the muscles indicated on the breast, with the alimentary canal above them; the tail is blocked in in white. In the hind foot the fourth toe, standing back at an angle to the others, is well shown. The two fore-arms, hands, and feet are silhouetted in white, and the former are curiously decorated with a red and black diamond pattern; the joints on one of the hands are indicated by yellow lines.

11. Drawing of two hands and fore-arms and two feet. The arms and hands are elaborately decorated with arrangements of lines and dots; the nails are indicated in some cases. The feet, seen from below, are decorated with longitudinal red lines.

12. Two feet and two hands, decorated with lines and circles of dots. On one foot the heel is indicated.

13. An old and a young Echidna. The thick-set structure of the animal is well indicated. The backbone is shown, and also a large mass of fat and flesh on its back.

14. A fish, called Nuppadaibba, which only old men are allowed to eat. The overhanging under lip, vertebral column, short straight alimentary canal, and both eyes are represented.

15. On the left side a large bat or "flying fox" (*Pteropus poliocephalus*) is represented. The right hand is disproportionate in size; the hooked claw on the first finger is indicated, and there is an extra toe on each foot. It has the appearance of representing a bat that has had the fur singed off and the flying membrane destroyed preparatory to cooking the animal. On the right side are three small fishes, called Burramethur.

16. The Jabiru or Burtpeniweir (*Xenorhynchus asiaticus*). The black bills are shown, but the drawing of the head is very conventional. The backbone runs all along the neck and body; the alimentary canal is drawn; the flesh on the breast is indicated, and the tail blocked in with white.

17. Three small drawings of bandicoots or Miniorko.

18. The large crocodile or Eribinjori (*Crocodilus porosus*). The alimentary canal is shown in the lower part of the drawing, and the backbone running down the middle of the body. The white blocks outlined with black above the backbone in the trunk region probably indicate the prominent rows of scales and scutes on the back of the animal. At the left end are two hands and forearms of a child (Nudji).

(All these drawings were collected and presented by Mr. P. Cahill.)

PICTURE ON SMOKED BARK, REPRESENTING SCENES IN THE LIFE OF AN ABORIGINAL. (Case 86.)

Drawn by a native, Lake Tyrell, Victoria.

SCENE ILLUSTRATING AUSTRALIAN ABORIGINAL LIFE. (Case 87.)

This exhibit depicts some incidents in the life of the Australian native. The scene represents a camping-ground by the side of a lagoon or watercourse, such a situation being chosen by the natives where possible. The two unclothed figures are natives of Lake Alexandrina, South Australia; and the other two, wearing cloaks, are natives of Victoria. The Australian native is a true nomad, being constantly on the move from place to place where food supplies and fresh water are to be obtained. He has not reached the agricultural stage of civilization, and has no idea of cultivating cereals, or of laying in a stock of food to maintain himself during a time of scarcity. The camping-ground having been decided upon, the erection of huts, or mia-mias, would be at once begun and speedily completed. These huts are, as a rule, of an extremely unsubstantial character, and would be better described as shelters. They are commonly made of sheets of bark cut from neighbouring gum trees resting on the windward side of a rough framework, and forming a sort of lean-to, as may be seen from the example in the scene. Very often the shelters consist of nothing more than a few boughs. The worldly possessions of the natives, mostly weapons, are scattered about the mia-mia without fear of their being appropriated, because, in his native state, the native is honest.

The manner of producing fire varies in different parts of the continent, but the principle is the same as with all savage peoples, namely, the generation of heat by the friction of two pieces of dry wood. The practice most commonly employed is that illustrated by the squatting figure of the native in the foreground of the scene. A narrow, flat piece of soft wood about 10 inches long is placed on the ground, and firmly held in a horizontal position by the toes of the feet of the operator. Between the palms of his hands he maintains, in an upright position, a slender stick about 2 feet in length, fixed in a slight depression previously made in the flat piece of wood, which he twirls rapidly by a backward and forward motion of his hands, exerting at the same time a slight downward pressure. When fire arises from the depression in the flat piece of wood, the glowing charcoal



NATIVE CAMP SCENE.

powder either runs through a little notch into some tinder, usually dried leaves or grass, or the lower piece of wood is turned over to effect the same object, and a fire soon results by the operator gently blowing the smouldering material. In some of the Central Australian tribes a shield takes the place of the horizontal piece of wood, the edge of a spear-thrower being quickly drawn backwards and forwards by two operators across the face of the shield until ignition takes place. Various forms of fire-making implements may be seen in another case. In order to avoid the labour involved in the process described (every time a fire is required, the women often carry lighted brands or other smouldering substances with them on their journeys from place to place. Fire serves the two purposes of supplying warmth to the natives in cold weather, and for cooking their food, which practically consists of anything eatable, both animal and vegetable. The operation of cooking is usually of a very simple nature, the art of boiling not being known to, at least, the majority, if any, of the tribes. The animal, just as killed, and if small enough, is simply roasted over the fire without any preparation whatsoever until deemed sufficiently cooked. This condition is regulated largely by the appetite of the individuals concerned, who, if pressed by hunger, will devour the animal before it has had time to be even properly warmed through. Another method of cooking, and a universal one, is to dig a hole in the ground into which heated stones are placed, followed by grass or leaves, on which the animal is placed. It is then covered with another layer of grass or leaves and the hole completely filled in with hot ashes and earth under which it is left until sufficiently cooked. The circular mounds now commonly known as kitchen middens mark the position of favourite camping places. These kitchen middens are composed of refuse from the camp, mixed with earth and charcoal, which have accumulated over long periods.

The figures of the man and woman seen approaching the mima-mia are supposed to be returning home after a hunting expedition. In the woman's hand will be noticed the digging stick, and on her back a young child, secured in its position by the skin cloak, an arrangement which gives her the free use of both hands. In some parts of Australia the infants are carried about in a wooden trough, called a *Pitchi*, which is also devoted to other uses. The cloaks worn by both the men and women are made of opossum skins sewn together with the sinew of some animal, most often taken from the tail of a kangaroo, and in Victoria were usually worn when travelling. The inner side was, as a rule, decorated with

various designs, most frequently of a geometrical character. Opossum-skin coats were confined to the Victorian tribes. With most of the aborigines, however, clothing is scarcely worthy of the name, consisting merely of a girdle or small apron. The men generally wear no clothing whatever. At ordinary times little attention is given to personal ornamentation by men or women, but during dances or corroborees and certain sacred ceremonies the men are often elaborately decorated. The head of the clothed man in the scene is decorated with a forehead-band woven out of a string, in which are stuck, one on each side, feathers of the black cockatoo—a favorite ornament. The woman is wearing a common form of necklace made by stringing on a cord a large number of sections cut out of the stems of reeds.

The Australian canoes are, for the most part, of a very primitive character. Along the north coast and north-east coast of Queensland dug-outs, out-rigger canoes, and bark canoes of a superior type are now in use, but the art of constructing the first two kinds has been acquired by contact with the Malays and Papuans. The canoes generally consist simply of a sheet of bark cut from a gum tree. In Tasmania and in parts of Western Australia, even this crude vessel does not appear to have been known, and a rough sort of raft was used when reaches of smooth water had to be crossed. In making an ordinary canoe, a suitable tree (usually a red gum, *Eucalyptus rostrata*) was selected. The workman ascended the tree by chopping holes with his stone tomahawk for his toes as he proceeded, and notched the bark along the lines required to give the desired shape to the sheet of bark. He then descended from the tree, and by means of his tomahawk separated the bark from the wood for some distance along the cut edges, completing its removal with the aid of a sapling, as a lever, inserted under the bark. According to the kind of bark used, the sheet was either placed over a fire and turned inside out or employed as cut from the tree. In the corner of this case the trunk of a large red gum tree (which was growing in the Richmond Park, Melbourne) shows the place where a sheet of bark has been stripped off for the purpose of making a canoe. In Victoria two varieties of canoes were in use. One kind (see specimen on Museum wall), which is folded together and tied at the ends to form the stem and stern, was apparently restricted to the natives of Gippsland. The other kind, employed by the natives of the Murray and its tributaries, of which an example is shown in this case, was made of the simple sheet of bark without any improvements, except

that in some instances, when there was danger of water entering, lumps of mud were placed at one or both ends to form barriers. Both these kinds of canoes were used only in smooth or shallow water, and were propelled by a long pole, the operator standing upright.

Besides nets, very similar in form and manufacture to those of civilized people, and hooks made of both bone and wood, the natives made extensive use of the spear in catching fish. A common form of fishing spear is seen in the hand of one of the male figures in this scene, posed in a position ready to cast the spear at a fish. This spear is formed of a plain head made from a piece of hardwood hafted to a reed shaft; but pronged and barbed spears were also frequently employed. Probably very few spears were devoted exclusively to fishing, which was carried on by night as well as by day.

Although memorials of deceased persons are not commonly known, various forms, some only of a temporary nature, but others more permanent, were used in different parts of Australia. Among the latter, perhaps, were the carved trees found in New South Wales. One of these trees, obtained for and presented to the Museum by Mr. A. R. McCrae, is standing in a corner of this case. It was found near the Nimur River, and is said to have been carved as a memorial to a tribal headman who happened to die close to it.

PLAYTHINGS. (Case 83.)

1. Small stone balls, naturally formed, used for spinning. This is a very favourite game amongst the natives of many parts of Australia. The ball is held between the fore and middle fingers, and is then made to spin upon some smooth, hard surface, the object being to make it spin for as long a time as possible. Armuta tribe, Central Australia.

2-7. Specimens of a plaything found in many parts of Australia, and called, in Victoria, "Wit-Wit." The knob and handle are made out of a single piece of wood, and, when used, the thin end is held in the hand, and the implement is twirled round and round, and then suddenly let go. It flies off at a tangent, strikes the ground, rebounds, strikes the ground again, and rebounds time after time. The object is to make it traverse as great a distance as possible. An expert thrower will make it travel for, perhaps, 200 yards. The weight of the Wit-Wit is usually a little more than 1 ounce.

8. Child's play boomerang. Macarthur River, Northern Territory.

SMOKING PIPES. (Case 89.)

1-3. Among the northern coastal tribes a form of pipe is often met with, which has probably been derived from the Malays. At all events, as the native Australian, in his natural condition, does not smoke, it can hardly be regarded as strictly indigenous. It is evidently based in form upon that of an opium pipe, with a small bowl and a long stem. When in use, a small quantity of tobacco is placed in the bowl, which is usually made out of a piece of tin, or the metal top of an old cartridge. One end of the stem, generally made out of bamboo, is closed with paper-bark, which also fills up any chinks left round the bowl. After a little vigorous pulling, the whole stem becomes filled with smoke, and as it is often of considerable size, perhaps 3 feet or more in length and about 2 inches in diameter, it holds a large amount. The pipe is then passed round from one man to another, each taking a mouthful and inhaling it. These natives prefer this method of smoking to the European style, though they also adopt the latter method.

MISCELLANEOUS. (Case 90.)

1, 2. Fly whisks made out of shredded *Pandanus* leaves. Binbinga tribe, Macarthur River, Northern Territory.

3. Norkun, wing of palmated goose, used as a fan. Kakadu tribe, Alligator River, Northern Territory.

4, 5. Yaiilla, corroboree wand, used for keeping time to the singing by beating it on the ground. It is also used for magic. A man who has a pain in his back will fasten one of these into his waist-girdle. The pain passes into the Yaiilla, and can be thrown away. Kakadu tribe, Alligator River, Northern Territory.

6. A rasp, called Munumburabura, made of a flat piece of wood, with shark skin stretched over it. Kakadu tribe, Alligator River, Northern Territory.

7, 8. Scratching sticks. Kakadu tribe, Alligator River, Northern Territory.

9, 10. Challenge sticks, called Medjingeli, sent out to invite natives of other camps to a fight. The longer one is sent out for a general and the shorter for a single fight. Kakadu tribe, Alligator River, Northern Territory.

11. Stick, called Tjubulin-juboulu, made by a man, and given to his wife when it is evident that she is going to have a child. The woman must always carry it about until the child is born. (1-11 presented by Professor Spenceer.)

SPECIMENS ILLUSTRATING THE CUTTING OF TREES BY ABORIGINALS. (Case 91.)

1. Section of gum tree from which a shield has been cut.
2. Rough shield cut from the gum tree. (1 and 2 presented by Mr. A. S. Kenyon.)
3. Finished shield.
4. Section of a tree trunk, showing a hole cut out by an aboriginal with a stone axe to secure an opossum. (Presented by Mr. H. Baker.)
5. Section of a tree trunk, showing a hole cut out by an aboriginal with an iron axe to secure an opossum. (Presented by Mr. H. Baker.)

WOMAN'S DILLY BAG AND CONTENTS. (Case 92.)

The bag was in the possession of a woman of the Kakadu tribe, East Alligator River, Northern Territory. It contained all her possessions, except her yam-stick and mat. The bones are those of her young child, who had recently died. The contents of the bag are as follow:—1. Dilly-bag, made of grass stalks. 2. A number of locks of human hair, probably her own. 3. Human hair made up in string. 4. Hair cut from the head of the dead child, carried about in a small parcel. 5. Fire sticks. 6. Fresh-water mussel shell used for scraping. 7. Stone which has been used for pounding or opening mussel shells. The stone is slightly abraded by use at the pointed end. 8. Red ochre used for painting the body. 9. White pipeclay used for painting the body. 10. Part of a lily root used for food. 11. Kangaroo teeth used as ornaments. 12. Part of a kangaroo fibula, used as an awl or nose-bone. 13. Fragment of plaited split cane, with small lump of beeswax. 14. Small mass of wool from the Cotton tree. 15. Portion of the skull of the child. 16. Lower jaw. 17. Bones of hind limbs. 18. Bones of arm. 19. Portion of the pelvis. 20. Shoulder blade. 21. Three portions of backbone. 22. Ribs. (Presented by Professor Spencer.)

CASTS OF HEADS OF VICTORIAN ABORIGINALS. (Case 93.)

Cast of the heads of eleven Victorian aboriginals made by Mr. Charles Summers at the Aboriginal Station, Coranderrk in 1866 for the Melbourne Intercolonial Exhibition 1866-7. (Presented by the Commissioners of the Exhibition.)

1. Female, Mt. Franklin tribe. Age 23. 2. Male, Yarra Yarra tribe. Age 38. 3. Female, Yarra Yarra tribe. Age 30. 4. Male. Age 13. 5. Female, Goulburn River tribe. Age 20. 6. Female, Goulburn River tribe. Age 10. 7. Male, Goulburn River tribe. Age 22. 8. Male, Loddon River tribe. Age 65. 9. Female, Loddon River tribe. Age 26. 10. Male. Age 18. 11. Female, Baechus Marsh tribe. Age 6.

TASMANIAN ABORIGINALS. (Case 94.)

Masks of the faces of two male and one female Tasmanian aboriginals and cast of the skeleton of Truganini, the last of the Tasmanians. The latter is moulded from the original skeleton in the Tasmanian Museum, Hobart.

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